

**FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION**

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name      Farnell Residence Street              Seminole Terrace City, State, Zip      Lake City, FL, 32055- Owner                Mason Farnell Design Location      FL, Gainesville	Builder Name      Owner Permit Office      Columbia Permit Number Jurisdiction        221000
--	---

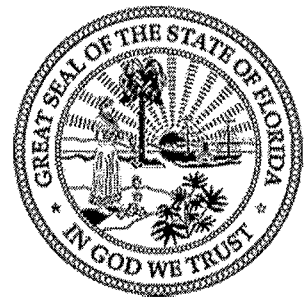
1 New construction or existing      New (From Plans) 2 Single family or multiple family      Single-family 3 Number of units, if multiple family      1 4 Number of Bedrooms      3 5 Is this a worst case?      No 6 Conditioned floor area above grade (ft²)      2651 Conditioned floor area below grade (ft²)      0 7 Windows (216 2 sqft.)      Description      Area a. U-Factor      Dbl, U=0.55      216 22 ft² SHGC      SHGC=0.60 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      4 743 ft. Area Weighted Average SHGC      0.600 8 Floor Types (2651 0 sqft.)      Insulation      Area a. Slab-On-Grade Edge Insulation      R=0.0      2651 00 ft² b. N/A      R=      ft² c. N/A      R=      ft²	9 Wall Types (2118 8 sqft) a. Frame - Wood, Exterior      Insulation      Area R=13.0      2118 80 ft² b. N/A      R=      ft² c. N/A      R=      ft² d. N/A      R=      ft² 10 Ceiling Types (2651 0 sqft) a. Under Attic (Vented)      Insulation      Area R=30.0      2651 00 ft² b. N/A      R=      ft² c. N/A      R=      ft² 11 Ducts      R      ft² a. Sup Attic, Ret Attic, AH Main      6      530 2 12 Cooling systems      kBtu/hr      Efficiency a. Central Unit      35.0      SEER 14.00 13 Heating systems      kBtu/hr      Efficiency a. Electric Heat Pump      35.0      HSPF 7.70 14 Hot water systems a. Electric      Cap 40 gallons EF 0.920 b. Conservation features None 15 Credits      CF, Pstat
--	--

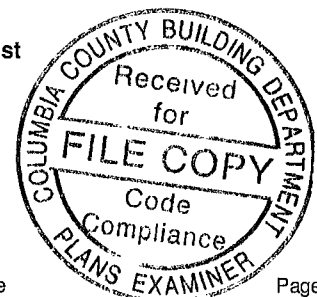
Glass/Floor Area: 0.082	Total Proposed Modified Loads: 36.00	<b>PASS</b>
	Total Standard Reference Loads: 50.26	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code PREPARED BY: <u>Ta. Oeller</u> DATE: <u>9/30/13</u> I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: <u>[Signature]</u> DATE: <u>3/10/14</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: _____
--	---



- Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist



PROJECT												
Title	Farnell Residence	Bedrooms	3	Address Type	Street Address							
Building Type	User	Conditioned Area	2651	Lot #								
Owner	Mason Farnell	Total Stories	1	Block/SubDivision								
# of Units	1	Worst Case	No	PlatBook								
Builder Name	Owner	Rotate Angle	0	Street	Seminole Terrace							
Permit Office	Columbia	Cross Ventilation		County	Columbia							
Jurisdiction	221000	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, Gainesville	FL_GAINESVILLE_REGI	2	32	92	70	75	1305.5	51	Medium		
BLOCKS												
	Number	Name	Area	Volume								
	1	Block1	2651	23859								
SPACES												
	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated	
	1	Main	2651	23859	Yes	2	3	1	Yes	Yes	Yes	
FLOORS												
✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet		
_____	1	Slab-On-Grade Edge Insulation	Main	257.5 ft	0	2651 ft²	----	0.25	0.75	0		
ROOF												
✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor	SA Tested	Emitt	Emitt Tested	Deck Insul	Pitch (deg)
_____	1	Gable or shed	Composition shingles	2965 ft²	664 ft²	Medium	0.96	No	0.9	No	0	26.6
ATTIC												
✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC					
_____	1	Full attic	Vented	300	2651 ft²	N	N					
CEILING												
✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type					
_____	1	Under Attic (Vented)	Main	30	2651 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	N	Exterior	Frame - Wood	Main	13	37		9		333 0 ft²		0 23	0.75	0
___	2	E	Exterior	Frame - Wood	Main	13	46.5		9		418 5 ft²		0 23	0.75	0
___	3	E	Exterior	Frame - Wood	Main	13	30	3	9	0	272 3 ft²		0 23	0.75	0
___	4	S	Exterior	Frame - Wood	Main	13	45		9		405.0 ft²		0 23	0.75	0
___	5	W	Exterior	Frame - Wood	Main	13	27		9		243 0 ft²		0 23	0.75	0
___	6	W	Exterior	Frame - Wood	Main	13	49	8	9	0	447 0 ft²		0 23	0.75	0

DOORS											
✓	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
___	1	W	Wood	Main	Metal	32	3		6	8	20 ft²
___	2	E	Insulated	Main	Metal	28	3		6	8	20 ft²
___	3	E	Insulated	Main	Metal	.28	3		6	8	20 ft²
___	4	E	Insulated	Main	Metal	.28	3		6	8	20 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	N	1	Vinyl	Low-E Double	Yes	0.55	0.6	37 3 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
___	2	N	1	Vinyl	Low-E Double	Yes	0.55	0.6	7 1 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
___	3	E	2	Vinyl	Low-E Double	Yes	0.55	0.6	7 1 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
___	4	E	2	Vinyl	Low-E Double	Yes	0.55	0.6	4 4 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
___	5	E	3	Vinyl	Low-E Double	Yes	0.55	0.6	24 9 ft²	15 ft 10 in	0 ft 4 in	Drapes/blinds	None
___	6	S	4	Vinyl	Low-E Double	Yes	0.55	0.6	24 9 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
___	7	W	5	Vinyl	Low-E Double	Yes	0.55	0.6	24 9 ft²	12 ft 0 in	0 ft 4 in	Drapes/blinds	None
___	8	W	6	Vinyl	Low-E Double	Yes	0.55	0.6	85 6 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None

INFILTRATION								
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	0005	3476.8	190.87	358.96	385	8.7434

HEATING SYSTEM							
✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
___	1	Electric Heat Pump	None	HSPF 7.7	35 kBtu/hr	1	sys#1

COOLING SYSTEM												
✓	#	System Type	SubType	Efficiency	Capacity	Air Flow	SHR	Block	Ducts			
✓	1	Central Unit	None	SEER 14	35 kBtu/hr	1050 cfm	0.75	1	sys#1			

HOT WATER SYSTEM										
✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation	
✓	1	Electric	None	Main	0.92	40 gal	60 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 TOT	CFM25 OUT	QN	RLF	HVAC # Heat Cool	
		Location	R-Value	Area	Location	Area							
✓	1	Attic	6	530.2 ft²	Attic	132.55 f	Default Leakage	Main	(Default) c	(Default) c		1	1

TEMPERATURES														
Programable Thermostat Y					Ceiling Fans									
Cooling	Heating	Venting	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			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 PM	78 80	78 80	78 78	78 78	78 78	78 78	78 78	78 78	80 78	80 78	80 78	80 78
Cooling (WEH)	AM PM	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78
Heating (WD)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66
Heating (WEH)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66

# Florida Code Compliance Checklist

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

ADDRESS: Seminole Terrace  
Lake City, FL, 32055-

PERMIT #:

## 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.	N/A
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.	✓