


FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Sample Addition Street: 346 Main Street City, State, Zip: Orlando , FL , 32922- Owner: OWNER Design Location: FL, Orlando	Builder Name: BUILDER Permit Office: Permit Number: Jurisdiction:
---	--

<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;">1. New construction or existing</td> <td style="width:30%;">Addition</td> <td style="width:40%;"></td> </tr> <tr> <td>2. Single family or multiple family</td> <td>Single-family</td> <td></td> </tr> <tr> <td>3. Number of units, if multiple family</td> <td>1</td> <td></td> </tr> <tr> <td>4. Number of Bedrooms(Bedrms In Addition)</td> <td>3(1)</td> <td></td> </tr> <tr> <td>5. Is this a worst case?</td> <td>No</td> <td></td> </tr> <tr> <td>6. Conditioned floor area above grade (ft²)</td> <td>500</td> <td></td> </tr> <tr> <td> Conditioned floor area below grade (ft²)</td> <td>0</td> <td></td> </tr> <tr> <td>7. Windows(60.0 sqft.)</td> <td>Description</td> <td>Area</td> </tr> <tr> <td> a. U-Factor:</td> <td>Dbl, U=0.55</td> <td>60.00 ft²</td> </tr> <tr> <td> SHGC:</td> <td>SHGC=0.35</td> <td></td> </tr> <tr> <td> b. U-Factor:</td> <td>N/A</td> <td>ft²</td> </tr> <tr> <td> SHGC:</td> <td></td> <td></td> </tr> <tr> <td> c. U-Factor:</td> <td>N/A</td> <td>ft²</td> </tr> <tr> <td> SHGC:</td> <td></td> <td></td> </tr> <tr> <td> d. U-Factor:</td> <td>N/A</td> <td>ft²</td> </tr> <tr> <td> SHGC:</td> <td></td> <td></td> </tr> <tr> <td> Area Weighted Average Overhang Depth:</td> <td>1.000 ft.</td> <td></td> </tr> <tr> <td> Area Weighted Average SHGC:</td> <td>0.350</td> <td></td> </tr> <tr> <td>8. Floor Types (500.0 sqft.)</td> <td>Insulation</td> <td>Area</td> </tr> <tr> <td> a. Slab-On-Grade Edge Insulation</td> <td>R=0.0</td> <td>500.00 ft²</td> </tr> <tr> <td> b. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td> c. N/A</td> <td>R=</td> <td>ft²</td> </tr> </table>	1. New construction or existing	Addition		2. Single family or multiple family	Single-family		3. Number of units, if multiple family	1		4. Number of Bedrooms(Bedrms In Addition)	3(1)		5. Is this a worst case?	No		6. Conditioned floor area above grade (ft²)	500		Conditioned floor area below grade (ft²)	0		7. Windows(60.0 sqft.)	Description	Area	a. U-Factor:	Dbl, U=0.55	60.00 ft²	SHGC:	SHGC=0.35		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:	1.000 ft.		Area Weighted Average SHGC:	0.350		8. Floor Types (500.0 sqft.)	Insulation	Area	a. Slab-On-Grade Edge Insulation	R=0.0	500.00 ft²	b. N/A	R=	ft²	c. N/A	R=	ft²	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;">9. Wall Types(405.0 sqft.)</td> <td style="width:20%;">Insulation</td> <td style="width:50%;">Area</td> </tr> <tr> <td> a. Concrete Block - Int Insul, Exterior</td> <td>R=5.0</td> <td>405.00 ft²</td> </tr> <tr> <td> b. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td> c. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td> d. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>10. Ceiling Types (500.0 sqft.)</td> <td>Insulation</td> <td>Area</td> </tr> <tr> <td> a. Under Attic (Vented)</td> <td>R=30.0</td> <td>500.00 ft²</td> </tr> <tr> <td> b. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td> c. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>11. Ducts</td> <td></td> <td>R ft²</td> </tr> <tr> <td> a. Sup: Attic, Ret: Attic, AH: Main</td> <td></td> <td>6 100</td> </tr> <tr> <td>12. Cooling systems</td> <td>kBtu/hr</td> <td>Efficiency</td> </tr> <tr> <td> a. Central Unit</td> <td>8.8</td> <td>SEER:16.00</td> </tr> <tr> <td>13. Heating systems</td> <td>kBtu/hr</td> <td>Efficiency</td> </tr> <tr> <td> a. Electric Heat Pump</td> <td>6.5</td> <td>HSPF:7.70</td> </tr> <tr> <td>14. Hot water systems - None (Baseline assumed)</td> <td></td> <td></td> </tr> <tr> <td> a. Electric</td> <td></td> <td>Cap: N/A</td> </tr> <tr> <td></td> <td></td> <td>EF: 0.92</td> </tr> <tr> <td> b. Conservation features</td> <td></td> <td></td> </tr> <tr> <td> None</td> <td></td> <td></td> </tr> <tr> <td>15. Credits</td> <td></td> <td>Pstat</td> </tr> </table>	9. Wall Types(405.0 sqft.)	Insulation	Area	a. Concrete Block - Int Insul, Exterior	R=5.0	405.00 ft²	b. N/A	R=	ft²	c. N/A	R=	ft²	d. N/A	R=	ft²	10. Ceiling Types (500.0 sqft.)	Insulation	Area	a. Under Attic (Vented)	R=30.0	500.00 ft²	b. N/A	R=	ft²	c. N/A	R=	ft²	11. Ducts		R ft²	a. Sup: Attic, Ret: Attic, AH: Main		6 100	12. Cooling systems	kBtu/hr	Efficiency	a. Central Unit	8.8	SEER:16.00	13. Heating systems	kBtu/hr	Efficiency	a. Electric Heat Pump	6.5	HSPF:7.70	14. Hot water systems - None (Baseline assumed)			a. Electric		Cap: N/A			EF: 0.92	b. Conservation features			None			15. Credits		Pstat
1. New construction or existing	Addition																																																																																																																																	
2. Single family or multiple family	Single-family																																																																																																																																	
3. Number of units, if multiple family	1																																																																																																																																	
4. Number of Bedrooms(Bedrms In Addition)	3(1)																																																																																																																																	
5. Is this a worst case?	No																																																																																																																																	
6. Conditioned floor area above grade (ft²)	500																																																																																																																																	
Conditioned floor area below grade (ft²)	0																																																																																																																																	
7. Windows(60.0 sqft.)	Description	Area																																																																																																																																
a. U-Factor:	Dbl, U=0.55	60.00 ft²																																																																																																																																
SHGC:	SHGC=0.35																																																																																																																																	
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:	1.000 ft.																																																																																																																																	
Area Weighted Average SHGC:	0.350																																																																																																																																	
8. Floor Types (500.0 sqft.)	Insulation	Area																																																																																																																																
a. Slab-On-Grade Edge Insulation	R=0.0	500.00 ft²																																																																																																																																
b. N/A	R=	ft²																																																																																																																																
c. N/A	R=	ft²																																																																																																																																
9. Wall Types(405.0 sqft.)	Insulation	Area																																																																																																																																
a. Concrete Block - Int Insul, Exterior	R=5.0	405.00 ft²																																																																																																																																
b. N/A	R=	ft²																																																																																																																																
c. N/A	R=	ft²																																																																																																																																
d. N/A	R=	ft²																																																																																																																																
10. Ceiling Types (500.0 sqft.)	Insulation	Area																																																																																																																																
a. Under Attic (Vented)	R=30.0	500.00 ft²																																																																																																																																
b. N/A	R=	ft²																																																																																																																																
c. N/A	R=	ft²																																																																																																																																
11. Ducts		R ft²																																																																																																																																
a. Sup: Attic, Ret: Attic, AH: Main		6 100																																																																																																																																
12. Cooling systems	kBtu/hr	Efficiency																																																																																																																																
a. Central Unit	8.8	SEER:16.00																																																																																																																																
13. Heating systems	kBtu/hr	Efficiency																																																																																																																																
a. Electric Heat Pump	6.5	HSPF:7.70																																																																																																																																
14. Hot water systems - None (Baseline assumed)																																																																																																																																		
a. Electric		Cap: N/A																																																																																																																																
		EF: 0.92																																																																																																																																
b. Conservation features																																																																																																																																		
None																																																																																																																																		
15. Credits		Pstat																																																																																																																																

Glass/Floor Area: 0.120	Total Proposed Modified Loads: 13.89 Total Baseline Loads: 17.57	PASS
-------------------------	---	------

<p>I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.</p> <p>PREPARED BY: _____ DATE: _____</p> <p>I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.</p> <p>OWNER/AGENT: _____ DATE: _____</p>	<p>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.</p> <div style="text-align: right;">  </div> <p>BUILDING OFFICIAL: _____ DATE: _____</p>
---	--

PROJECT

Title:	Sample Addition	Bedrooms:	3	Address Type:	Street Address
Building Type:	FLProp2010	Conditioned Area:	500	Lot #	
Owner:	OWNER	Total Stories:	1	Block/SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	BUILDER	Rotate Angle:	0	Street:	346 Main Street
Permit Office:		Cross Ventilation:		County:	Orange
Jurisdiction:		Whole House Fan:		City, State, Zip:	Orlando , FL , 32922-
Family Type:	Single-family				
New/Existing:	Addition				
Comment:					

CLIMATE

✓	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
_____	FL, Orlando	FL_ORLANDO_INTL_AR	2	41	91	75	70	526	44	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	500	4000

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Cooled	Heated
1	Main	500	4000	Yes	4	3	1	Yes	Yes

FLOORS

✓	#	Floor Type	Room	Perimeter	R-Value	Area	Tile	Wood	Carpet	
_____	1	Slab-On-Grade Edge Insulatio	Main	45 ft	0	500 ft²	----	1	0	0

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Composition shingles	542 ft²	0 ft²	Medium	0.96	No	0.9	No	0	22.6

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	500 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	30	500 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	SE	Exterior	Concrete Block - Int Insul	Main	5	20		9		180 ft²		0	0.6	0
	2	SW	Exterior	Concrete Block - Int Insul	Main	5	25		9		225 ft²		0	0.6	0

DOORS

✓	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
	1	SE	Wood	Main	None	0.460000	2.8		6.7		18.75999

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓	#	Ornt	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang Depth	Separation	Int Shade	Screening
	1	SE	Metal	Low-E Double	Yes	0.55	0.35	N	30 ft²	1 ft 0 in	1 ft 0 in	HERS 2006	None
	2	SW	Metal	Low-E Double	Yes	0.55	0.35	N	30 ft²	1 ft 0 in	1 ft 0 in	HERS 2006	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	BySpaces	Best Guess	0.000500	655.75	36	67.703	0.3650	9.8363

HEATING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
	1	Electric Heat Pump	None	HSPF: 7.7	6.5 kBtu/hr	1	sys#1

COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
	1	Central Unit	Split	SEER: 16	8.8 kBtu/hr	360 cfm	0.75	1	sys#1

HOT WATER SYSTEM

✓	#	System Type	EF	Cap	Use	SetPnt	Conservation
	1	Electric	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	Percent Leakage		HVAC #	
		Location	R-Value	Area	Location	Area	QN				RLF	Heat	Cool	
	1	Attic	6	100 ft²	Attic	25 ft²	DSE=0.88	Main	0.0 cfm	0.00 %	0.00	0.60	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
Heating	<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
Venting	<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

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	78	78	78
	PM	80	80	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78
	PM	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
	PM	68	68	68	68	68	68	68	68	68	68	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66

Florida Code Compliance Checklist

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

ADDRESS: 346 Main Street
Orlando, FL, 32922-

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.	
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.	