20

FORM 1100A-08

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs Residential Performance Method A

Project Name:	Howell Residence	Builder Name:	Columbia
Street:	CR 349	Permit Office:	29879
City, State, Zip:	Lake City , FL ,	Permit Number:	
Owner:		Jurisdiction:	221006
Design Location:	FL, Gainesville		

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	2
5. Is this a worst case?	No
6. Conditioned floor area (ft²)	1008

7. Windows	Description	Area
a. U-Factor: SHGC:	Sgl, U=0.55 SHGC=0.60	75.00 ft²
b. U-Factor: SHGC:	N/A	ft²
c. U-Factor: SHGC:	N/A	ft²
d. U-Factor: SHGC:	N/A	ft²
e. U-Factor: SHGC:	N/A	ft²

8. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	1008.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

9. Wall Types	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1024.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10. Ceiling Types	Insulation	Area
a. Under Attic (Vented)	R=30.0	1008.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts
a. Sup: Attic Ret: Attic AH: Interior Sup. R= 6, 201.6 ft²

12. Cooling systems
a. Central Unit — Cap: 24.0 kBtu/hr SEER: 13

13. Heating systems
a. Electric Heat Pump — Cap: 24.0 kBtu/hr HSPF: 7.7

14. Hot water systems
a. Electric — Cap: 40 gallons EF: 0.92
b. Conservation features None

15. Credits — Pstat

Glass/Floor Area: 0.074

Total As-Built Modified Loads: 21.46
Total Baseline Loads: 26.01

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: Melissa Meles
DATE: 12-23-11

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____
DATE: _____

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 certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with N1110.A.3.**

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for FILE COPY
Code Compliance
PLANS EXAMINER

PROJECT

Title:	Howell Residence	Bedrooms:	2	Adress Type:	Street Address
Building Type:	FLAsBuilt	Conditioned Area:	1008	Lot #	
Owner:		Total Stories:	1	SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	CR 349
Permit Office:		Cross Ventilation:		County:	Columbia
Jurisdiction:		Whole House Fan:		City, State, Zip:	Lake City , FL ,
Family Type:	Single-family				
New/Existing:	New (From Plans)				
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, Gainesville	FL_GAINESVILLE_REGI	2	32	92	75	70	1305.5	51	Medium

FLOORS

√	#	Floor Type	Perimeter	R-Value	Area	Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	128 ft	0	1008 ft²	0.2	0.4	0.4

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	Tested	Deck Insul.	Pitch
_____	1	Hip	Metal	1062 ft²	0 ft²	Medium	0.96	No	0	18.4 deg

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	1008 ft²	Y	N

CEILING

√	#	Ceiling Type	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	30	1008 ft²	0.11	Wood

WALLS

√	#	Ornt	Adjacent To	Wall Type	Cavity R-Value	Area	Sheathing R-Value	Framing Fraction	Solar Absor.
_____	1	N	Exterior	Frame - Wood	13	288 ft²		0.23	0.75
_____	2	S	Exterior	Frame - Wood	13	288 ft²		0.23	0.75
_____	3	E	Exterior	Frame - Wood	13	224 ft²		0.23	0.75
_____	4	W	Exterior	Frame - Wood	13	224 ft²		0.23	0.75

DOORS

√	#	Ornt	Door Type	Storms	U-Value	Area
_____	1	N	Wood	None	0.460000	20 ft²
_____	2	S	Wood	None	0.460000	33.33333

WINDOWS

Orientation shown is the entered, asBuilt orientation.

√	#	Ornt	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
_____	1	N	Metal	Single (Clear)	Yes	0.55	0.6	N	15 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
_____	2	E	Metal	Single (Clear)	Yes	0.55	0.6	N	30 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
_____	3	W	Metal	Single (Clear)	Yes	0.55	0.6	N	30 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None

INFILTRATION & VENTING

√	Method	SLA	CFM 50	ACH 50	ELA	EqLA	---- Forced Ventilation ---- Supply CFM	Exhaust CFM	Run Time Fraction	Fan Watts
_____	Default	0.00036	952	7.08	52.3	98.3	0 cfm	0 cfm	0	0

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Ducts
_____	1	Central Unit	None	SEER: 13	24 kBtu/hr	720 cfm	0.75	sys#1

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Ducts
_____	1	Electric Heat Pump	None	HSPF: 7.7	24 kBtu/hr	sys#1

HOT WATER SYSTEM

√	#	System Type	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	0.92	40 gal	50 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 ---- Location	R-Value	Area	---- Return ---- Location	Area	Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF
_____	1	Attic	6	201.6 ft	Attic	50.4 ft²	Default Leakage	Interior	(Default)	(Default) %		

TEMPERATURES

Programable Thermostat: Y Ceiling Fans:

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

FORM 1100A-08

Code Compliance Cheklist

Residential Whole Building Performance Method A - Details

ADDRESS: CR 349
Lake City, FL,

PERMIT #:

INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	N1106.AB.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	N1106.AB.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	N1106.AB.1.2.2	Penetrations/openings > 1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	N1106.AB.1.2.3	Between walls & ceilings; penetrations of ceiling plane to top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	N1106.AB.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	N1106.AB.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	N1106.AB.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	N1112.AB.3	Comply with efficiency requirements in Table N112.ABC.3. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	N1112.AB.2.3	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%. Heat pump pool heaters shall have a minimum COP of 4.0.	
Shower heads	N1112.AB.2.4	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	N1110.AB	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated and installed in accordance with the criteria of Section N1110.AB. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	N1107.AB.2	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	N1104.AB.1 N1102.B.1.1	Ceilings-Min. R-19. Common walls-frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 83

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

CR 349, Lake City, FL,

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		2	
5. Is this a worst case?		No	
6. Conditioned floor area (ft²)		1008	
7. Windows**	Description		Area
a. U-Factor: SHGC:	Sgl, U=0.55 SHGC=0.60		75.00 ft²
b. U-Factor: SHGC:	N/A		ft²
c. U-Factor: SHGC:	N/A		ft²
d. U-Factor: SHGC:	N/A		ft²
e. U-Factor: SHGC:	N/A		ft²
8. Floor Types		Insulation	Area
a. Slab-On-Grade Edge Insulation		R=0.0	1008.00 ft²
b. N/A		R=	ft²
c. N/A		R=	ft²

9. Wall Types	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1024.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²
10. Ceiling Types	Insulation	Area
a. Under Attic (Vented)	R=30.0	1008.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
11. Ducts		
a. Sup: Attic Ret: Attic AH: Interior Sup.		R= 6, 201.6 ft²
12. Cooling systems		
a. Central Unit		Cap: 24.0 kBtu/hr SEER: 13
13. Heating systems		
a. Electric Heat Pump		Cap: 24.0 kBtu/hr HSPF: 7.7
14. Hot water systems		
a. Electric		Cap: 40 gallons EF: 0.92
b. Conservation features None		
15. Credits		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: _____ Date: _____

Address of New Home: _____ City/FL Zip: _____

*Note: The home's estimated Energy Performance Index is only available through the EnergyGauge USA - FlaRes2008 computer program. This is not a Building Energy Rating. If your Index is below 100, your home may qualify for incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at (321) 638-1492 or see the Energy Gauge web site at energygauge.com for information and a list of certified Raters. For information about Florida's Energy Efficiency Code for Building Construction, contact the Department of Community Affairs at (850) 487-1824.

**Label required by Section 13-104.4.5 of the Florida Building Code, Building, or Section B2.1.1 of Appendix G of the Florida Building Code, Residential, if not DEFAULT.