

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs
Residential Whole Building Performance Method A

Project Name:	Isaac Construction Inc. - Pilotti	Builder:	Isaac Construction Inc.
Address:	Lot: 21, Sub: Emerald Lakes, Plat:	Permitting Office:	Columbia
City, State:	Lake City, FL 32025-	Permit Number:	
Owner:	Somerset Model	Jurisdiction Number:	221000
Climate Zone:	North		

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 49.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 12.50
4. Number of Bedrooms	4	b. N/A	
5. Is this a worst case?	No	c. N/A	
6. Conditioned floor area (ft²)	2154 ft²	13. Heating systems	
7. Glass area & type		a. Electric Heat Pump	Cap: 49.0 kBtu/hr
a. Clear - single pane	0.0 ft²		HSPF: 6.80
b. Clear - double pane	456.0 ft²	b. N/A	
c. Tint/other SHGC - single pane	0.0 ft²	c. N/A	
d. Tint/other SHGC - double pane	0.0 ft²	14. Hot water systems	
8. Floor types		a. Electric Resistance	Cap: 80.0 gallons
a. Slab-On-Grade Edge Insulation	R=0.0, 249.0(p) ft		EF: 0.90
b. N/A		b. N/A	
c. N/A		c. Conservation credits	
9. Wall types		(HR-Heat recovery, Solar	
a. Frame, Wood, Exterior	R=13.0, 1556.0 ft²	DHP-Dedicated heat pump)	
b. Frame, Wood, Adjacent	R=13.0, 182.0 ft²	15. HVAC credits	
c. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
d. N/A		HF-Whole house fan,	
e. N/A		PT-Programmable Thermostat,	
10. Ceiling types		MZ-C-Multizone cooling,	
a. Under Attic	R=30.0, 2316.0 ft²	MZ-H-Multizone heating)	
b. N/A			
c. N/A			
11. Ducts			
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 65.0 ft		
b. N/A			

Glass/Floor Area: 0.21

Total as-built points: 33357

Total base points: 33363

PASS

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

PREPARED BY: Will Myers

DATE: 04/29/05

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

OWNER/AGENT: [Signature]

DATE: 5-12-05

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: _____

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 21, Sub: Emerald Lakes, Plat: , Lake City, FL, 32025-

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned X BSPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt			Area X SPM X SOF = Points			
.18	2154.0	20.04	7769.9	Double, Clear	W	1.5	6.0	30.0	36.99	0.91	1013.5
				Double, Clear	SW	1.5	8.0	21.0	38.46	0.95	763.9
				Double, Clear	W	1.5	8.0	28.0	36.99	0.96	992.2
				Double, Clear	NW	2.5	8.0	21.0	25.46	0.89	474.3
				Double, Clear	NW	10.5	9.7	20.0	25.46	0.62	317.3
				Double, Clear	W	10.3	8.0	84.0	36.99	0.47	1469.6
				Double, Clear	W	10.3	8.0	30.0	36.99	0.47	524.9
				Double, Clear	N	1.5	6.0	30.0	19.22	0.94	541.2
				Double, Clear	N	1.5	2.0	4.0	19.22	0.76	58.2
				Double, Clear	E	1.5	8.0	60.0	40.22	0.96	2310.9
				Double, Clear	E	1.5	6.0	30.0	40.22	0.91	1101.4
				Double, Clear	E	1.5	5.0	40.0	40.22	0.87	1407.1
				Double, Clear	E	9.5	9.7	22.0	40.22	0.52	462.0
				Double, Clear	S	1.5	5.0	16.0	34.50	0.81	445.4
				Double, Clear	S	1.5	6.0	20.0	34.50	0.86	590.7
				As-Built Total:				456.0		12472.5	
WALL TYPES Area X BSPM = Points				Type	R-Value			Area X SPM = Points			
Adjacent	182.0	0.70	127.4	Frame, Wood, Exterior	13.0			1556.0	1.50	2334.0	
Exterior	1556.0	1.70	2645.2	Frame, Wood, Adjacent	13.0			182.0	0.60	109.2	
Base Total: 1738.0 2772.6				As-Built Total:				1738.0		2443.2	
DOOR TYPES Area X BSPM = Points				Type	Area X SPM = Points						
Adjacent	18.0	2.40	43.2	Exterior Insulated				20.0	4.10	82.0	
Exterior	20.0	6.10	122.0	Adjacent Insulated				18.0	1.60	28.8	
Base Total: 38.0 165.2				As-Built Total:				38.0		110.8	
CEILING TYPES Area X BSPM = Points				Type	R-Value			Area X SPM X SCM = Points			
Under Attic	2154.0	1.73	3726.4	Under Attic	30.0			2316.0	1.73 X 1.00	4006.7	
Base Total: 2154.0 3726.4				As-Built Total:				2316.0		4006.7	
FLOOR TYPES Area X BSPM = Points				Type	R-Value			Area X SPM = Points			
Slab	249.0(p)	-37.0	-9213.0	Slab-On-Grade Edge Insulation	0.0			249.0(p)	-41.20	-10258.8	
Raised	0.0	0.00	0.0								
Base Total: -9213.0				As-Built Total:				249.0		-10258.8	

SUMMER CALCULATIONS

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ADDRESS: Lot: 21, Sub: Emerald Lakes, Plat: , Lake City, FL, 32025-

PERMIT #:

BASE				AS-BUILT						
INFILTRATION Area X BSPM = Points				Area X SPM = Points						
2154.0 10.21 21992.3				2154.0 10.21 21992.3						
Summer Base Points: 27213.5				Summer As-Built Points: 30766.7						
Total Summer X System = Cooling Points Multiplier Points				Total X Cap X Duct X System X Credit = Cooling Component Ratio Multiplier Multiplier Multiplier Points (DM x DSM x AHU)						
27213.5 0.4266 11609.3				30766.7 1.000 (1.090 x 1.147 x 1.00) 0.273 1.000 10502.6 30766.7 1.00 1.250 0.273 1.000 10502.6						

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

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PERMIT #:

BASE				AS-BUILT							
GLASS TYPES											
.18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt		Area X WPM X WOF = Points				
.18	2154.0	12.74	4939.6	Double, Clear	W	1.5	6.0	30.0	10.77	1.02	330.5
				Double, Clear	SW	1.5	8.0	21.0	7.17	1.03	154.9
				Double, Clear	W	1.5	8.0	28.0	10.77	1.01	304.8
				Double, Clear	NW	2.5	8.0	21.0	14.03	1.01	296.3
				Double, Clear	NW	10.5	9.7	20.0	14.03	1.03	287.9
				Double, Clear	W	10.3	8.0	84.0	10.77	1.19	1078.8
				Double, Clear	W	10.3	8.0	30.0	10.77	1.19	385.3
				Double, Clear	N	1.5	6.0	30.0	14.30	1.00	430.1
				Double, Clear	N	1.5	2.0	4.0	14.30	1.01	58.1
				Double, Clear	E	1.5	8.0	60.0	9.09	1.02	556.3
				Double, Clear	E	1.5	6.0	30.0	9.09	1.04	282.4
				Double, Clear	E	1.5	5.0	40.0	9.09	1.05	381.8
				Double, Clear	E	9.5	9.7	22.0	9.09	1.28	256.2
				Double, Clear	S	1.5	5.0	16.0	4.03	1.20	77.2
				Double, Clear	S	1.5	6.0	20.0	4.03	1.12	90.1
				As-Built Total:		456.0			4970.6		
WALL TYPES				Area X BWPM = Points		Type		R-Value		Area X WPM = Points	
Adjacent	182.0	3.60	655.2	Frame, Wood, Exterior		13.0		1556.0		3.40 5290.4	
Exterior	1556.0	3.70	5757.2	Frame, Wood, Adjacent		13.0		182.0		3.30 600.6	
Base Total:				1738.0		6412.4		As-Built Total:		1738.0 5891.0	
DOOR TYPES				Area X BWPM = Points		Type		Area X WPM = Points			
Adjacent	18.0	11.50	207.0	Exterior Insulated		20.0		8.40		168.0	
Exterior	20.0	12.30	246.0	Adjacent Insulated		18.0		8.00		144.0	
Base Total:				38.0		453.0		As-Built Total:		38.0 312.0	
CEILING TYPES				Area X BWPM = Points		Type		R-Value		Area X WPM X WCM = Points	
Under Attic	2154.0	2.05	4415.7	Under Attic		30.0		2316.0		2.05 X 1.00 4747.8	
Base Total:				2154.0		4415.7		As-Built Total:		2316.0 4747.8	
FLOOR TYPES				Area X BWPM = Points		Type		R-Value		Area X WPM = Points	
Slab	249.0(p)	8.9	2216.1	Slab-On-Grade Edge Insulation		0.0		249.0(p)		18.80 4681.2	
Raised	0.0	0.00	0.0								
Base Total:				2216.1		As-Built Total:		249.0		4681.2	

WINTER CALCULATIONS**Residential Whole Building Performance Method A - Details**

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PERMIT #:

BASE				AS-BUILT						
INFILTRATION Area X BWPM = Points				Area X WPM = Points						
2154.0 -0.59 -1270.9				2154.0 -0.59 -1270.9						
Winter Base Points: 17165.9				Winter As-Built Points: 19331.8						
Total Winter Points	X	System Multiplier	= Heating Points	Total Component	X	Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points
17165.9		0.6274	10769.9	19331.8		1.000	(1.069 x 1.169 x 1.00)	0.501	1.000	12114.6
				19331.8		1.00	1.250	0.501	1.000	12114.6

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

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PERMIT #:

BASE					AS-BUILT					
WATER HEATING					Tank Volume	EF	Number of Bedrooms	X Tank Ratio	Multiplier X Credit Multiplier	= Total
Number of Bedrooms	X	Multiplier	=	Total						
4		2746.00		10984.0	80.0	0.90	4	1.00	2684.98	1.00 10739.9
					As-Built Total:					10739.9

CODE COMPLIANCE STATUS									
BASE					AS-BUILT				
Cooling Points	+	Heating Points	+	Hot Water Points = Total Points	Cooling Points	+	Heating Points	+	Hot Water Points = Total Points
11609		10770		10984 33363	10503		12115		10740 33357

PASS



Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 21, Sub: Emerald Lakes, Plat: , Lake City, FL, 32025-

PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.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	606.1.ABC.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	606.1.ABC.1.2.3	Between walls & ceilings; penetrations of ceiling plane of 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	606.1.ABC.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 rated with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 6-12. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	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%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	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 SCORE* = 82.8

The higher the score, the more efficient the home.

Somerset Model, Lot: 21, Sub: Emerald Lakes, Plat: , Lake City, FL, 32025-

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 49.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 12.50
4. Number of Bedrooms	4	b. N/A	
5. Is this a worst case?	No	c. N/A	
6. Conditioned floor area (ft ²)	2154 ft ²		
7. Glass area & type		13. Heating systems	
a. Clear - single pane	0.0 ft ²	a. Electric Heat Pump	Cap: 49.0 kBtu/hr
b. Clear - double pane	456.0 ft ²		HSPF: 6.80
c. Tint/other SHGC - single pane	0.0 ft ²	b. N/A	
d. Tint/other SHGC - double pane	0.0 ft ²	c. N/A	
8. Floor types		14. Hot water systems	
a. Slab-On-Grade Edge Insulation	R=0.0, 249.0(p) ft	a. Electric Resistance	Cap: 80.0 gallons
b. N/A			EF: 0.90
c. N/A		b. N/A	
9. Wall types		c. Conservation credits	
a. Frame, Wood, Exterior	R=13.0, 1556.0 ft ²	(HR-Heat recovery, Solar	
b. Frame, Wood, Adjacent	R=13.0, 182.0 ft ²	DHP-Dedicated heat pump)	
c. N/A		15. HVAC credits	
d. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
e. N/A		HF-Whole house fan,	
10. Ceiling types		PT-Programmable Thermostat,	
a. Under Attic	R=30.0, 2316.0 ft ²	MZ-C-Multizone cooling,	
b. N/A		MZ-H-Multizone heating)	
c. N/A			
11. Ducts			
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 65.0 ft		
b. N/A			

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 score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStarTM designation), your home may qualify for energy efficiency mortgage (EEM) 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 www.fsec.ucf.edu 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 850/488-1824.*

EnergyGauge Version: FLR1PB v3.22)