

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: R1020429 Street: City, State, Zip: Lake City, FL, 32025 Owner: Broderick Design Location: FL, Gainesville	Builder Name: Wade Willis Construction Permit Office: Permit Number: Jurisdiction: County: Columbia (Florida Climate Zone 2)
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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 3 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 1456 Conditioned floor area below grade (ft²) 0 7. Windows(188.8 sqft.) Description Area a. U-Factor: Dbl, U=0.29 148.80 ft² SHGC: SHGC=0.21 b. U-Factor: Dbl, U=0.22 40.00 ft² SHGC: SHGC=0.09 c. U-Factor: N/A ft² SHGC: d. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 5.945 ft. Area Weighted Average SHGC: 0.185 8. Floor Types (1456.0 sqft.) Insulation Area a. Slab-On-Grade Edge Insulation R=0.0 1456.00 ft² b. N/A R= ft² c. N/A R= ft²	9. Wall Types (1280.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=13.0 1280.00 ft² b. N/A R= ft² c. N/A R= ft² d. N/A R= ft² 10. Ceiling Types (1456.0 sqft.) Insulation Area a. Roof Deck (Unvented) R=20.0 1456.00 ft² b. N/A R= ft² c. N/A R= ft² 11. Ducts R ft² a. Sup: Main, Ret: Main, AH: Main 6 150 12. Cooling systems kBtu/hr Efficiency a. Central Unit 24.2 SEER: 17.00 13. Heating systems kBtu/hr Efficiency a. Electric Heat Pump 29.0 HSPF: 9.50 14. Hot water systems Cap: 50 gallons a. Electric EF: 0.970 b. Conservation features None 15. Credits CF, Pstat
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Glass/Floor Area: 0.130	Total Proposed Modified Loads: 35.41	PASS
	Total Baseline Loads: 42.41	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. <i>Lina M. Reese</i> PREPARED BY: _____ DATE: 10-19-20	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 certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 7.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT													
Title:	R1020429	Bedrooms:	3	Address Type:	Street Address								
Building Type:	User	Conditioned Area:	1456	Lot #									
Owner Name:	Broderick	Total Stories:	1	Block/Subdivision:									
# of Units:	1	Worst Case:	No	PlatBook:									
Builder Name:	Wade Willis Construction	Rotate Angle:	0	Street:									
Permit Office:		Cross Ventilation:	No	County:	Columbia								
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City , FL , 32025								
Family Type:	Single-family												
New/Existing:	New (From Plans)												
Comment:													
CLIMATE													
✓	Design Location	TMY Site	Design Temp 97.5 %	2.5 %	Int Design Temp Winter	Summer	Heating Degree Days	Design Moisture	Daily Temp Range				
_____	FL, Gainesville	FL_GAINESVILLE_REGI	32	92	70	75	1305.5	51	Medium				
BLOCKS													
	Number	Name	Area	Volume									
	1	Entire House	1456	11648									
SPACES													
	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated		
	1	Main	1456	11648	Yes	4	3	1	Yes	Yes	Yes		
FLOORS													
✓	#	Floor Type	Space	Perimeter	R-Value	Area			Tile	Wood	Carpet		
_____	1	Slab-On-Grade Edge Insulatio	Main	160 ft	0	1456 ft²	----		0	0	1		
ROOF													
✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Gable or Shed	Composition shingles	1534 ft²	242 ft²	Medium	N	0.65	No	0.9	No	20	18.4
ATTIC													
✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC						
_____	1	Full attic	Unvented	0	1456 ft²	N	N						
CEILING													
✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type					
_____	1	Under Attic (Unvented)	Main	0	Blown	1456 ft²	0.1	Wood					

INPUT SUMMARY CHECKLIST REPORT

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	52	0	8	0	416.0 ft²	0	0.25	0.3	0
2	E	Exterior	Frame - Wood	Main	13	28	0	8	0	224.0 ft²	0	0.25	0.3	0
3	S	Exterior	Frame - Wood	Main	13	52	0	8	0	416.0 ft²	0	0.25	0.3	0
4	W	Exterior	Frame - Wood	Main	13	28	0	8	0	224.0 ft²	0	0.25	0.3	0

DOORS

✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
1	S	Insulated	Main	None	.35	3		6	8	20 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
1	N	1	TIM	Low-E Double	Yes	0.22	0.09	N	40.0 ft²	12 ft 0 in	0 ft 6 in	None	None
2	N	1	TIM	Low-E Double	Yes	0.29	0.21	N	9.0 ft²	1 ft 4 in	0 ft 6 in	Drapes/blinds	Exterior 5
3	N	1	TIM	Low-E Double	Yes	0.29	0.21	N	9.0 ft²	12 ft 0 in	0 ft 6 in	Drapes/blinds	Exterior 5
4	N	1	TIM	Low-E Double	Yes	0.29	0.21	N	18.0 ft²	1 ft 4 in	0 ft 6 in	Drapes/blinds	Exterior 5
5	E	2	TIM	Low-E Double	Yes	0.29	0.21	N	31.8 ft²	1 ft 4 in	0 ft 6 in	Drapes/blinds	Exterior 5
6	S	3	TIM	Low-E Double	Yes	0.29	0.21	N	36.0 ft²	1 ft 4 in	0 ft 6 in	Drapes/blinds	Exterior 5
7	S	3	TIM	Low-E Double	Yes	0.29	0.21	N	36.0 ft²	11 ft 0 in	0 ft 6 in	Drapes/blinds	Exterior 5
8	W	4	TIM	Low-E Double	Yes	0.29	0.21	N	9.0 ft²	1 ft 4 in	0 ft 6 in	Drapes/blinds	Exterior 5

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000356	1358.9	74.6	140.3	.1339	7

HEATING SYSTEM

✓ #	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
1	Electric Heat Pump/	Split	Singl	HSPF:9.5	29 kBtu/hr	1	sys#1

COOLING SYSTEM

✓ #	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
1	Central Unit/	Split	Singl	SEER: 17	24.2 kBtu/hr	807 cfm	0.75	1	sys#1

HOT WATER SYSTEM

✓ #	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
1	Electric	None	Main	0.97	50 gal	60 gal	120 deg	None

INPUT SUMMARY CHECKLIST REPORT

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											
_____		1	Main	6	150 ft²	Main	75 ft²	Default Leakage	Main	(Default)	(Default)			1 1										
TEMPERATURES																								
Programable Thermostat: Y					Ceiling Fans:																			
Cooling	☒	Jan	☒	Feb	☒	Mar	☐	Apr	☐	May	☒	Jun	☒	Jul	☒	Aug	☒	Sep	☐	Oct	☐	Nov	☒	Dec
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				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	80	80	80	80									
	PM	80	80	78	78	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	78	78									
	PM	78	78	78	78	78	78	78	78	78	78	78	78	78	78									
Heating (WD)	AM	66	66	66	66	66	66	68	68	68	68	68	68	68	68									
	PM	68	68	68	68	68	68	68	68	68	68	68	68	68	66									
Heating (WEH)	AM	66	66	66	66	66	66	68	68	68	68	68	68	68	68									
	PM	68	68	68	68	68	68	68	68	68	68	68	68	66	66									
MASS																								
Mass Type		Area		Thickness		Furniture Fraction		Space																
Default(8 lbs/sq.ft.)		0 ft²		0 ft		0.3		Main																

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 83

The lower the Energy Performance Index, the more efficient the home.

1. New home or, addition	1. <u>New (From Plans)</u>	12. Ducts, location & insulation level
2. Single-family or multiple-family	2. <u>Single-family</u>	a) Supply ducts R <u>6.0</u>
3. No. of units (if multiple-family)	3. <u>1</u>	b) Return ducts R <u>6.0</u>
4. Number of bedrooms	4. <u>3</u>	c) AHU location <u>Main</u>
5. Is this a worst case? (yes/no)	5. <u>No</u>	13. Cooling system: Capacity <u>24.2</u>
6. Conditioned floor area (sq. ft.)	6. <u>1456</u>	a) Split system SEER <u>17.0</u>
7. Windows, type and area		b) Single package SEER <u> </u>
a) U-factor:(weighted average)	7a. <u>0.275</u>	c) Ground/water source SEER/COP <u> </u>
b) Solar Heat Gain Coefficient (SHGC)	7b. <u>0.185</u>	d) Room unit/PTAC EER <u> </u>
c) Area	7c. <u>188.8</u>	e) Other <u> </u>
8. Skylights		14. Heating system: Capacity <u>29.0</u>
a) U-factor:(weighted average)	8a. <u>NA</u>	a) Split system heat pump HSPF <u>9.5</u>
b) Solar Heat Gain Coefficient (SHGC)	8b. <u>NA</u>	b) Single package heat pump HSPF <u> </u>
9. Floor type, insulation level:		c) Electric resistance COP <u> </u>
a) Slab-on-grade (R-value)	9a. <u>0.0</u>	d) Gas furnace, natural gas AFUE <u> </u>
b) Wood, raised (R-value)	9b. <u> </u>	e) Gas furnace, LPG AFUE <u> </u>
c) Concrete, raised (R-value)	9c. <u> </u>	f) Other <u> </u>
10. Wall type and insulation:		15. Water heating system
A. Exterior:		a) Electric resistance EF <u>0.97</u>
1. Wood frame (Insulation R-value)	10A1. <u>13.0</u>	b) Gas fired, natural gas EF <u> </u>
2. Masonry (Insulation R-value)	10A2. <u> </u>	c) Gas fired, LPG EF <u> </u>
B. Adjacent:		d) Solar system with tank EF <u> </u>
1. Wood frame (Insulation R-value)	10B1. <u> </u>	e) Dedicated heat pump with tank EF <u> </u>
2. Masonry (Insulation R-value)	10B2. <u> </u>	f) Heat recovery unit HeatRec% <u> </u>
11. Ceiling type and insulation level		g) Other <u> </u>
a) Under attic	11a. <u>0.0</u>	16. HVAC credits claimed (Performance Method)
b) Single assembly	11b. <u> </u>	a) Ceiling fans <u>Yes</u>
c) Knee walls/skylight walls	11c. <u> </u>	b) Cross ventilation <u>No</u>
d) Radiant barrier installed	11d. <u>No</u>	c) Whole house fan <u>No</u>
		d) Multizone cooling credit <u> </u>
		e) Multizone heating credit <u> </u>
		f) Programmable thermostat <u>Yes</u>

*Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

I certify that this home has complied with the Florida Building Code, Energy Conservation, 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: Lake City, FL 32025

Do not remove until final inspection by code official.

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Certifie ENERGY STAR dans les régions en surbrillance

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energystar.gov



ER/RE14

DO NOT REMOVE UNTIL FINAL INSPECTION NE PAS RETIRER AVANT L'INSPECTION FINALE



American
Craftsman
by Ply Gem WINDOWS • DOORS

CPDW SIL-N-3-02095-00002
2301 Single Hung Vinyl Dual Glazed
Low-E SC Argon Fill Grids

ENERGY PERFORMANCE RATINGS

U-Factor	Solar Heat Gain Coefficient
0.29 (U.S./I-P)	0.21
1.65 (Metric/SI)	

ADDITIONAL PERFORMANCE RATINGS

Visible Transmittance
0.40

Manufacturer states that these ratings conform to applicable NFRC procedures for determining window product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for other product performance information.
www.nfrc.org



WINDOW & DOOR
MANUFACTURERS ASSOCIATION

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Licensee 440-H-020

Silver Line Windows

2301 Single Hung Vinyl Dual Glazed

Low-E SC Argon Fill Grids

Manufacturer States Certification to the
following standards

STANDARD	RATING
AWMA/WDMA/CSA 101/I.S.2/R448-11	Class R-P035 Size Tested 36 x 62 in DP +50/-50 psf
FL 14911	
Glazing 2.2 mm Single Str AN Outer/ 2.2 mm Single Str AN Inner	
Complies with HUD UM Bulletin 111	
25564479.1.44	

Tests or exceeds CEC & IECC Air Infiltration Requirements of 0.3 CFM/sq.ft.
or lower. WDMA Hallmark Certification Program

PRODUCT ID 58 SERIES SH

S.O. 25564479.1 PD

267655



Fiberglass Entry Door
Inswing Default Frame
Dual Clear IG w/Grds 1/4-Lite
STN - K - 29 - 48925 - 00001

ENERGY PERFORMANCE RATINGS

U-Factor (U.S./I - P)

0.22

SOLAR Heat Gain Coefficient

0.09

ADDITIONAL PERFORMANCE RATINGS

Visible Transmittance

0.09

Air Leakage (U.S./I - P)

≤ 0.3

Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend and product and does not warrant the suitability of any product for a specific use. Consult manufacturer's literature for other product performance information. www.nfrc.org



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in All 50 States

STRUCTURAL PERFORMANCE RATINGS

Design Pressure(DP)

+50.0 / -50.0
TAS 202

Impact Resistance

None

Max Size & Configuration

3' - 0" X 6' - 8"
Single (X)

Florida Approval

FL22363.5