

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Roper Residence - C-1309 - J-4528 Street: City, State, Zip: , FL , Owner: Roper Residence Design Location: FL, Gainesville	Builder Name: 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 Detached 3. Number of units, if multiple family 1 4. Number of Bedrooms 2 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 1110 Conditioned floor area below grade (ft²) 0 7. Windows (112.0 sqft.) Description Area a. U-Factor: Dbl, U=0.35 112.00 ft² SHGC: SHGC=0.25 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 1.000 ft. Area Weighted Average SHGC: 0.250 8. Skylights Area c. U-Factor:(AVG) N/A ft² SHGC(AVG): N/A 9. Floor Types (1110.0 sqft.) Insulation Area a. Slab-On-Grade Edge Insulation R=0.0 1110.00 ft² b. N/A R= ft² c. N/A R= ft²	10. Wall Types (1072.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=11.0 1072.00 ft² b. N/A R= ft² c. N/A R= ft² d. N/A R= ft² 11. Ceiling Types (1110.0 sqft.) Insulation Area a. Under Attic (Vented) R=30.0 1110.00 ft² b. N/A R= ft² c. N/A R= ft² 12. Ducts R ft² a. Sup: Attic, Ret: Attic, AH: Exterior 6 200 13. Cooling systems kBtu/hr Efficiency a. Central Unit 23.8 SEER:14.00 14. Heating systems kBtu/hr Efficiency a. Electric Heat Pump 23.8 HSPF:8.20 15. Hot water systems a. Electric Cap: 40 gallons b. Conservation features EF: 0.950 None 16. Credits Pstat
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Glass/Floor Area: 0.101	Total Proposed Modified Loads: 30.87	PASS
	Total Baseline Loads: 30.81	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u>James Bolton</u> DATE: <u>02/11/2021</u> I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: <u>[Signature]</u> DATE: <u>2/18/21</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: _____
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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 6.00 ACH50 (R402.4.1.2).
- Compliance with a proposed duct leakage Qn requires a Duct Leakage Test Report confirming duct leakage to outdoors, tested in accordance with ANSI/RESNET/ICC 380, is not greater than 0.030 Qn for whole house.

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Roper Residence - C-1309 - J	Bedrooms:	2	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1110	Lot #	
Owner Name:	Roper Residence	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	
Permit Office:		Cross Ventilation:	No	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	, FL,
Family Type:	Detached				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

✓	Design Location	TMY Site	Design Temp		Int Design Temp		Heating	Design	Daily Temp
			97.5 %	2.5 %	Winter	Summer	Degree Days	Moisture	Range
_____	FL, Gainesville	FL_GAINESVILLE_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1110	8880

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1110	8880	Yes	3	2	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	134 ft		1110 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	1203 ft²	232 ft²	Medium	N	0.9	N	0.9	No	0	22.62

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	150	1110 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	30	Blown	1110 ft²	0.1	Wood

INPUT SUMMARY CHECKLIST REPORT

WALLS

✓ #	Omt	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	11	37	0	8	0	296.0 ft²	0	0.25	0.8	0
2	E	Exterior	Frame - Wood	Main	11	30	0	8	0	240.0 ft²	0	0.25	0.8	0
3	S	Exterior	Frame - Wood	Main	11	37	0	8	0	296.0 ft²	0	0.25	0.8	0
4	W	Exterior	Frame - Wood	Main	11	30	0	8	0	240.0 ft²	0	0.25	0.8	0

DOORS

✓ #	Omt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
1	E	Wood	Main	None	.39	3		6	8	20 ft²
2	W	Wood	Main	None	.39	2	11	6	8	19.4 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓ #	Omt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
1	n	1	Metal	Low-E Double	Yes	0.35	0.25	N	4.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	None
2	e	2	Metal	Low-E Double	Yes	0.35	0.25	N	30.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	None
3	s	3	Metal	Low-E Double	Yes	0.35	0.25	N	18.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	None
4	W	4	Metal	Low-E Double	Yes	0.35	0.25	N	60.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000305	888	48.72	91.46	.1176	6

HEATING SYSTEM

✓ #	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
1	Electric Heat Pump/	Split	Singl	HSPF:8.2	23.8 kBtu/hr	1	sys#1

COOLING SYSTEM

✓ #	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
1	Central Unit/	Split	Singl	SEER: 14	23.8 kBtu/hr	cfm	0.8	1	sys#1

HOT WATER SYSTEM

✓ #	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
1	Electric	None	Main	0.95	40 gal	60.9 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			ft ²		

DUCTS

✓	#	--- Supply --- Location	R-Value	Area	--- Return --- Location	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	Cool
_____	1	Attic	6	200 ft ²	Attic	100 ft ²	Prop. Leak Free	Exterior	--- cfm	33.3 cfm	0.03	0.50	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 type="checkbox"/>	Apr	<input type="checkbox"/>	May	<input checked="" type="checkbox"/>	Jun	<input checked="" type="checkbox"/>	Jul	<input checked="" type="checkbox"/>	Aug	<input checked="" type="checkbox"/>	Sep	<input type="checkbox"/>	Oct	<input type="checkbox"/>	Nov	<input checked="" type="checkbox"/>	Dec
Heating	<input type="checkbox"/>	Jan	<input type="checkbox"/>	Feb	<input type="checkbox"/>	Mar	<input type="checkbox"/>	Apr	<input type="checkbox"/>	May	<input type="checkbox"/>	Jun	<input type="checkbox"/>	Jul	<input type="checkbox"/>	Aug	<input type="checkbox"/>	Sep	<input type="checkbox"/>	Oct	<input type="checkbox"/>	Nov	<input type="checkbox"/>	Dec
Venting	<input type="checkbox"/>	Jan	<input type="checkbox"/>	Feb	<input type="checkbox"/>	Mar	<input type="checkbox"/>	Apr	<input type="checkbox"/>	May	<input type="checkbox"/>	Jun	<input type="checkbox"/>	Jul	<input type="checkbox"/>	Aug	<input type="checkbox"/>	Sep	<input type="checkbox"/>	Oct	<input type="checkbox"/>	Nov	<input type="checkbox"/>	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	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

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
Default(8 lbs/sq.ft.)	0 ft ²	0 ft	0.3	Main