

Florida Department of Business and Professional Regulation - Residential Performance Method



Page 1 of 6

PROJECT

Title:	Ketcham Residence	Bedrooms:	5	Address Type:	Street Address
Building Type:	User	Conditioned Area:	4309	Lot #	
Owner:	Hunter and Luci Ketcham	Total Stories:	2	Block/SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	TBA	Rotate Angle:	0	Street:	Hwy 441 south
Permit Office:	Columbia County	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	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Upper Floor	2578	25780
2	Bonus Room	381	3048
3	Block5	1350	13500

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	2578	25780	Yes	4	4	1	Yes	Yes	Yes
2	2nd Floor	1350	13500	No	4	1	1	Yes	Yes	Yes
3	Bonus Room	381	3048	No	2	0	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulation	Main	232 ft	0	2578 ft²	----	0.1	0.3	0.6
_____	2	Floor over Garage	Bonus Room	----	----	318 ft²	19	0	0	1
_____	3	Floor Over Other Space	2nd Floor	----	----	1350 ft²	19	0.1	0.5	0.4

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Composition shingles	3099 ft²	0 ft²	Medium	0.96	No	0.9	No	0	33.7

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	2578 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
✓	1	Under Attic (Vented)	Main	30	2609 ft²	0.11	Wood
✓	2	Cathedral/Single Assembly (Vented)	Bonus Room	30	381 ft²	0.11	Wood
✓	3	Under Attic (Vented)	2nd Floor	30	1350 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	N	Exterior	Face Brick - Wood	Main	19	39	8	10		396.6666	0	0.23	0.75	0
✓	2	E	Exterior	Face Brick - Wood	Main	19	78		10		780 ft²	0	0.23	0.75	0
✓	3	S	Exterior	Face Brick - Wood	Main	19	38		10		380 ft²	0	0.23	0.75	0
✓	4	W	Exterior	Face Brick - Wood	Main	19	56		10		560 ft²	0	0.23	0.75	0
✓	5	W	Garage	Frame - Wood	Main	19	24		10		240 ft²		0.23	0.75	0
✓	6	N	Exterior	Face Brick - Wood	2nd Floor	19	37	6	10		375 ft²	0	0.23	0.75	0
✓	7	E	Exterior	Face Brick - Wood	2nd Floor	19	56		10		560 ft²	0	0.23	0.75	0
✓	8	W	Exterior	Face Brick - Wood	2nd Floor	19	56		10		560 ft²	0	0.23	0.75	0
✓	9	S	Exterior	Face Brick - Wood	2nd Floor	19	38		10		380 ft²	0	0.23	0.75	0
✓	10	N	Exterior	Frame - Wood	Bonus Room	13	26		8		208 ft²		0.23	0.75	0
✓	11	E	Exterior	Frame - Wood	Bonus Room	13	12		8		96 ft²		0.23	0.75	0
✓	12	S	Exterior	Frame - Wood	Bonus Room	13	26		8		208 ft²		0.23	0.75	0
✓	13	W	Exterior	Frame - Wood	Bonus Room	19	12		8		96 ft²		0.23	0.75	0

DOORS

✓	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
✓	1	E	Insulated	Main	None	0.460000	3		6	8	20 ft²
✓	2	E	Insulated	Main	None	0.460000	3		6	8	40 ft²
✓	3	W	Insulated	Main	None	0.460000	3		6	8	20 ft²
✓	4	W	Insulated	Main	None	0.460000	3		6	8	17.77777

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Separation	Int Shade	Screening
✓	1	S	3	Metal	Double (Tinted)	Yes	0.55	0.5	9 ft²	1 ft 6 in	12 ft 0 in	Drapes/blinds	None
✓	2	N	1	Metal	Double (Tinted)	Yes	0.55	0.5	30 ft²	1 ft 6 in	12 ft 0 in	Drapes/blinds	None
✓	3	E	2	Metal	Double (Tinted)	Yes	0.55	0.5	12 ft²	1 ft 6 in	3 ft 0 in	Drapes/blinds	None
✓	4	E	2	Metal	Double (Tinted)	Yes	0.55	0.5	45 ft²	1 ft 6 in	2 ft 0 in	Drapes/blinds	None
✓	5	E	2	Metal	Double (Tinted)	Yes	0.55	0.5	36 ft²	9 ft 6 in	6 ft 0 in	Drapes/blinds	None
✓	6	S	3	Metal	Double (Tinted)	Yes	0.55	0.5	8 ft²	1 ft 6 in	2 ft 0 in	Drapes/blinds	None
✓	7	W	4	Metal	Double (Tinted)	Yes	0.55	0.5	18 ft²	1 ft 6 in	2 ft 0 in	Drapes/blinds	None
✓	8	W	4	Metal	Double (Tinted)	Yes	0.55	0.5	90 ft²	9 ft 6 in	2 ft 0 in	Drapes/blinds	None
✓	9	N	6	Metal	Double (Tinted)	Yes	0.55	0.5	15 ft²	1 ft 6 in	2 ft 0 in	Drapes/blinds	None
✓	10	N	6	Metal	Double (Tinted)	Yes	0.55	0.5	8 ft²	1 ft 6 in	2 ft 0 in	Drapes/blinds	None
✓	11	E	7	Metal	Double (Tinted)	Yes	0.55	0.5	72 ft²	1 ft 6 in	2 ft 0 in	Drapes/blinds	None
✓	12	E	7	Metal	Double (Tinted)	Yes	0.55	0.5	36 ft²	1 ft 6 in	2 ft 0 in	Drapes/blinds	None

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Separation	Int Shade	Screening
✓	13	S	9	Metal	Double (Tinted)	Yes	0.55	0.5	8 ft²	1 ft 6 in	2 ft 0 in	Drapes/blinds	None
✓	14	S	9	Metal	Double (Tinted)	Yes	0.55	0.5	4 ft²	1 ft 6 in	2 ft 0 in	Drapes/blinds	None
✓	15	W	8	Metal	Double (Tinted)	Yes	0.55	0.5	90 ft²	1 ft 6 in	2 ft 0 in	Drapes/blinds	None
✓	16	N	10	Metal	Double (Tinted)	Yes	0.55	0.5	23.11111	1 ft 0 in	3 ft 0 in	Drapes/blinds	None

GARAGE

✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
✓	1	576 ft²	258 ft²	64 ft	10 ft	19

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	0.000500	5651.28	310.248	583.467	0.47399	8.01070

HEATING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
✓	1	Electric Heat Pump	Through the Wall(Split)	HSPF: 7.7	36 kBtu/hr	1	sys#1
✓	2	Electric Heat Pump	Through the Wall(Split)	HSPF: 7.7	12 kBtu/hr	2	sys#2
✓	3	Electric Heat Pump	Through the Wall(Split)	HSPF: 7.7	24 kBtu/hr	3	sys#3

COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
✓	1	Central Unit	Through the Wall(Split)	SEER: 13	36 kBtu/hr	1080 cfm	0.75	1	sys#1
✓	2	Central Unit	Through the Wall(Split)	SEER: 13	12 kBtu/hr	360 cfm	0.75	2	sys#2
✓	3	Central Unit	Split	SEER: 13	24 kBtu/hr	720 cfm	0.75	3	sys#3

HOT WATER SYSTEM

✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
✓	1	Natural Gas	Tankless	Exterior	0.59	1 gal	80 gal	120 deg	None

SOLAR HOT WATER SYSTEM

✓	FSEC	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
✓	Cert #						
✓	None	None			ft²		

DUCTS														
✓	#	--- Supply ---		--- Return ---		Leakage Type	Air Handler	CFM 25	Percent Leakage		QN	RLF	HVAC #	
		Location	R-Value	Area	Location				Area	c			(Default) %	Heat
	1	Main	6	287.266	Main	71.8166	Default Leakage	Main	(Default)	c	(Default) %		1	1
	2	Attic	6	1 ft²	Attic	71.8166	Default Leakage	Main	(Default)	c	(Default) %		2	2
	3	Attic	6	287.266	Attic	71.8166	Default Leakage	Main	(Default)	c	(Default) %		3	3

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

Florida Code Compliance Checklist

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

ADDRESS: Hwy 441 south
Lake City, FL,

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.	

TABLE 402.4.2

AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

Project Name: Ketcham Residence Street: Hwy 441 south City, State, Zip: Lake City, FL, Owner: Hunter and Luci Ketcham Design Location: FL, Gainesville			Builder Name: TBA Permit Office: Columbia County Permit Number: Jurisdiction:		
COMPONENT	CRITERIA			CHECK	
Air barrier and thermal barrier	Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier. Breaks or joints in the air barrier are filled or repaired. Air-permeable insulation is not used as a sealing material. Air-permeable insulation is inside of an air barrier.				
Ceiling/attic	Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed. Attic access (except unvented attic), knee wall door, or drop down stair is sealed.				
Walls	Corners and headers are insulated. Junction of foundation and sill plate is sealed.				
Windows and doors	Space between window/door jambs and framing is sealed.				
Rim joists	Rim joists are insulated and include an air barrier.				
Floors (including above-garage and cantilevered floors)	Insulation is installed to maintain permanent contact with underside of subfloor decking.				
Crawl space walls	Insulation is permanently attached to walls. Exposed earth in unvented crawl spaces is covered with Class I				
Shafts, penetrations	Duct shafts, utility penetrations, knee walls and flue shafts opening to exterior or unconditioned space are sealed.				
Narrow cavities	Batts in narrow cavities are cut to fit, or narrow cavities are filled by sprayed/blown insulation.				
Garage separation	Air sealing is provided between the garage and conditioned spaces.				
Recessed lighting	Recessed light fixtures are air tight, IC rated, and sealed to drywall. Exception—fixtures in conditioned space.				
Plumbing and wiring	Insulation is placed between outside and pipes. Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation				
Shower/tub on exterior wall	Showers and tubs on exterior walls have insulation and an air barrier separating them from the exterior wall.				
Electrical/phone box on	Air barrier extends behind boxes or air sealed-type boxes are installed.				
Common wall	Air barrier is installed in common wall between dwelling units.				
HVAC register boots	HVAC register boots that penetrate building envelope are sealed to subfloor or drywall.				
Fireplace	Fireplace walls include an air barrier.				