FORM R405-2017

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Housecraft homes Dawson res	Builder Name:	Housecraft Homes
Street:	10523 US Highway 441	Permit Office:	
City, State, Zip:	Alachua , FL , 32615	Permit Number:	
Owner:	Dawson	Jurisdiction:	
Design Location:	FL, Gainesville	County:	Alachua (Florida Climate Zone 2)

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)	1624
Conditioned floor area below grade (ft²)	0

7. Windows(169.8 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.33	169.83 ft²
SHGC:	SHGC=0.23	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
d. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		2.000 ft.
Area Weighted Average SHGC:		0.230

8. Floor Types (1624.0 sqft.)	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	1624.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

9. Wall Types (1672.0 sqft.)	Insulation	Area
a. Concrete Block - Int Insul, Exterior	R=5.0	1496.00 ft²
b. Frame - Wood, Adjacent	R=13.0	176.00 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10. Ceiling Types (1624.0 sqft.)	Insulation	Area
a. Under Attic (Vented)	R=38.0	1624.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts	R	ft²
a. Sup: Attic, Ret: Attic, AH: Garage	6	324.8

12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	23.2	SEER:14.00

13. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	23.2	HSPF:8.20

14. Hot water systems	
a. Electric	Cap: 40 gallons
	EF: 0.920
b. Conservation features	
None	
15. Credits	CF, Pstat

Glass/Floor Area: 0.105

Total Proposed Modified Loads: 46.24

Total Baseline Loads: 47.03

PASS

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

PREPARED BY: (Tightseal Inc)

DATE: 7/27/20

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 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 5.00 ACH50 (R402.4.1.2).**

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INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Housecraft homes Dawson re	Bedrooms:	3	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1624	Lot #	
Owner Name:	Dawson	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	Housecraft Homes	Rotate Angle:	0	Street:	10523 US Highway 441
Permit Office:		Cross Ventilation:		County:	Alachua
Jurisdiction:		Whole House Fan:		City, State, Zip:	Alachua , FL , 32615
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

√	Design Location	TMY Site	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	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1624	12992

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1624	12992	Yes	3	3	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	209 ft	0	1624 ft²	----	0.22	0.22	0.56

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	1816 ft²	406 ft²	Medium	N	0.96	No	0.9	No	0	26.6

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	1624 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	38	Blown	1624 ft²	0.11	Wood

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INPUT SUMMARY CHECKLIST REPORT

WALLS

√	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
____	1	NW	Garage	Frame - Wood	Main	13	22		8		176.0 ft²		0.111	0.150000	0
____	2	NW	Exterior	Concrete Block - Int Insul	Main	5	31		8		248.0 ft²		0	0.150000	0
____	3	NE	Exterior	Concrete Block - Int Insul	Main	5	52		8		416.0 ft²		0	0.150000	0
____	4	SE	Exterior	Concrete Block - Int Insul	Main	5	52		8		416.0 ft²		0	0.150000	0
____	5	SW	Exterior	Concrete Block - Int Insul	Main	5	52		8		416.0 ft²		0	0.150000	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
_____	1	NW	Insulated	Main	None	.46	3		6	8	20 ft²
_____	2	NW	Insulated	Main	None	.46	3		6	8	20 ft²
_____	3	SE	Insulated	Main	None	.46	1		6	8	6.7 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
_____	1	NW	2	Vinyl	Low-E Double	Yes	0.33	0.23	N	30.0 ft²	2 ft 0 in	1 ft 6 in	Drapes/blinds	None
_____	2	NW	2	Vinyl	Low-E Double	Yes	0.33	0.23	N	10.5 ft²	2 ft 0 in	1 ft 6 in	Drapes/blinds	None
_____	3	NW	2	Vinyl	Low-E Double	Yes	0.33	0.23	N	3.0 ft²	2 ft 0 in	1 ft 6 in	Drapes/blinds	None
_____	4	NE	3	Vinyl	Low-E Double	Yes	0.33	0.23	N	30.0 ft²	2 ft 0 in	1 ft 6 in	Drapes/blinds	None
_____	5	NE	3	Vinyl	Low-E Double	Yes	0.33	0.23	N	4.0 ft²	2 ft 0 in	1 ft 6 in	Drapes/blinds	None
_____	6	SE	4	Vinyl	Low-E Double	Yes	0.33	0.23	N	33.3 ft²	2 ft 0 in	1 ft 6 in	Drapes/blinds	None
_____	7	SE	4	Vinyl	Low-E Double	Yes	0.33	0.23	N	25.0 ft²	2 ft 0 in	1 ft 6 in	Drapes/blinds	None
_____	8	SE	4	Vinyl	Low-E Double	Yes	0.33	0.23	N	15.0 ft²	2 ft 0 in	1 ft 6 in	Drapes/blinds	None
_____	9	SW	5	Vinyl	Low-E Double	Yes	0.33	0.23	N	4.0 ft²	2 ft 0 in	1 ft 6 in	Drapes/blinds	None
_____	10	SW	5	Vinyl	Low-E Double	Yes	0.33	0.23	N	15.0 ft²	2 ft 0 in	1 ft 6 in	Drapes/blinds	None

GARAGE

√	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
_____	1	382.8 ft²	382.8 ft²	64 ft	8 ft	1

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000254	1082.7	59.44	111.78	.0956	5

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INPUT SUMMARY CHECKLIST REPORT

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump/	None	HSPF:8.2	23.2 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit/	None	SEER: 14	23.2 kBtu/hr	696 cfm	0.75	1	sys#1

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	Garage	0.92	40 gal	60 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 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
_____	1	Attic	6	324.8 ft	Attic	81.2 ft²	Default Leakage	Garage	(Default)	(Default)			1	1

TEMPERATURES

Programable Thermostat: Y

Ceiling Fans:

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

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

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* = 98

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

1. New home or, addition	1. New (From Plans)
2. Single-family or multiple-family	2. Single-family
3. No. of units (if multiple-family)	3. 1
4. Number of bedrooms	4. 3
5. Is this a worst case? (yes/no)	5. No
6. Conditioned floor area (sq. ft.)	6. 1624
7. Windows, type and area	
a) U-factor:(weighted average)	7a. 0.330
b) Solar Heat Gain Coefficient (SHGC)	7b. 0.230
c) Area	7c. 169.8
8. Skylights	
a) U-factor:(weighted average)	8a. NA
b) Solar Heat Gain Coefficient (SHGC)	8b. NA
9. Floor type, insulation level:	
a) Slab-on-grade (R-value)	9a. 0.0
b) Wood, raised (R-value)	9b.
c) Concrete, raised (R-value)	9c.
10. Wall type and insulation:	
A. Exterior:	
1. Wood frame (Insulation R-value)	10A1.
2. Masonry (Insulation R-value)	10A2. 5.0
B. Adjacent:	
1. Wood frame (Insulation R-value)	10B1. 13.0
2. Masonry (Insulation R-value)	10B2.
11. Ceiling type and insulation level	
a) Under attic	11a. 38.0
b) Single assembly	11b.
c) Knee walls/skylight walls	11c.
d) Radiant barrier installed	11d. No

12. Ducts, location & insulation level	
a) Supply ducts	R 6.0
b) Return ducts	R 6.0
c) AHU location	Garage
13. Cooling system:	Capacity 23.2
a) Split system	SEER
b) Single package	SEER
c) Ground/water source	SEER/COP
d) Room unit/PTAC	EER
e) Other	14.0
14. Heating system:	Capacity 23.2
a) Split system heat pump	HSPF
b) Single package heat pump	HSPF
c) Electric resistance	COP
d) Gas furnace, natural gas	AFUE
e) Gas furnace, LPG	AFUE
f) Other	8.20
15. Water heating system	
a) Electric resistance	EF 0.92
b) Gas fired, natural gas	EF
c) Gas fired, LPG	EF
d) Solar system with tank	EF
e) Dedicated heat pump with tank	EF
f) Heat recovery unit	HeatRec%
g) Other	
16. HVAC credits claimed (Performance Method)	
a) Ceiling fans	Yes
b) Cross ventilation	No
c) Whole house fan	No
d) Multizone cooling credit	
e) Multizone heating credit	
f) Programmable thermostat	Yes

*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: 10523 US Highway 441 City/FL Zip: Alachua, FL 32615