FORM R405-2017

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

APPROVED * HILDORF WERNER, CARTER & ASSOC. * NOV 0 2 2018

Project Name:	340TL30703AM AH REGION 2A	Builder Name:	OWNER
Street:	1608 SW SUNVIEW ST	Permit Office:	
City, State, Zip:	, FL, Ft. White 32038	Permit Number:	
Owner:	Alan Buxton	Jurisdiction:	
Design Location:	FL, Lakeland	County:	POLK (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?	Yes
6. Conditioned floor area above grade (ft²)	2100
Conditioned floor area below grade (ft²)	0

7. Windows(317.0 sqft.)	Description	Area
a. U-Factor: SHGC:	Dbl, U=0.30 SHGC=0.29	317.00 ft²
b. U-Factor: SHGC:	N/A	ft²
c. U-Factor: SHGC:	N/A	ft²
d. U-Factor: SHGC:	N/A	ft²
Area Weighted Average Overhang Depth:		0.500 ft.
Area Weighted Average SHGC:		0.290

8. Floor Types (2023.0 sqft.)	Insulation	Area
a. Raised Floor	R=11.0	2100.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

9. Wall Types (1764.0 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=11.0	1764.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10. Ceiling Types (2023.0 sqft.)	Insulation	Area
a. Under Attic (Vented)	R=33.0	2100.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts	R	ft²
a. Sup: Attic, Ret: Main, AH: Main	6	120

COLUMBIA COUNTY BUILDING DEPARTMENT Received for FILE COPY Code Compliance PLANS EXAMINER

12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	36.0	SEER:14.00

13. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	36.9	HSPF:8.20

14. Hot water systems	
a. Electric	Cap: 50 gallons EF: 0.910
b. Conservation features None	
15. Credits	None

Glass/Floor Area: 0.157

Total Proposed Modified Loads: 70.42

Total Baseline Loads: 72.98

PASS

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

PREPARED BY: Bruce Bussell

DATE: 10.25.18 RATER ID=608

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

OWNER/AGENT: SEE MANUFACTURER'S CONTRACT WITH FLORIDA

DATE: 12-21-2024

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.

GREAT SEAL OF THE STATE OF FLORIDA * IN GOD WE TRUST *

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 3.00 ACH50 (R402.4.1.2).**

Date 11-2-18 Plan No. 3R-2102-11487

Approved By SCOTT S. FRANCIS

Modular Building Plans Examiner
Florida License No. BMP-42

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INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	340TL30703AM AH REGION	Bedrooms:	3	Address Type:	Street Address
Building Type:	User	Conditioned Area:	2100	Lot #	
Owner Name:		Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	Yes	PlatBook:	
Builder Name:		Rotate Angle:	270	Street:	
Permit Office:		Cross Ventilation:		County:	POLK
Jurisdiction:		Whole House Fan:		City, State, Zip:	, FL ,
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, Lakeland	FL_LAKELAND_LINDER	34	92	70	75	973	48	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	2100	18207

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	2100	18207	Yes	4	3	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	R-Value	Area		Tile	Wood	Carpet
	1	Raised Floor	Main	---	2023 ft²	11	0.25	0	0.75

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	2185 ft²	252 ft²	Medium	N	0.96	No	0.9	No	0	14

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
	1	Full attic	Vented	150	2100 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
	1	Under Attic (Vented)	Main	33	Blown	2100 ft²	0.9	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	N=>W	Exterior	Frame - Wood	Main	11	68		9		612.0 ft²		0.19	0.75	0
	2	S=>E	Exterior	Frame - Wood	Main	11	68		9		612.0 ft²		0.23	0.75	0
	3	E=>N	Exterior	Frame - Wood	Main	11	30		9		270.0 ft²		0.23	0.75	0
	4	W=>S	Exterior	Frame - Wood	Main	11	30		9		270.0 ft²		0.23	0.75	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
	1	S=>E	Insulated	Main	None	.4		38		80	21.1 ft²
	2	W=>S	Insulated	Main	None	.4		38		80	21.1 ft²

WINDOWS

Orientation shown is the entered orientation (=>) changed to Worst Case.

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
	1	N=>W	1	Vinyl	Low-E Double	Yes	0.3	0.29	N	45.0 ft²	0 ft 6 in	0 ft 24 in	Drapes/blinds	Exterior 5
	2	N=>W	1	Vinyl	Low-E Double	Yes	0.3	0.29	N	9.0 ft²	0 ft 6 in	0 ft 10 in	None	Exterior 5
	3	N=>W	1	Vinyl	Low-E Double	Yes	0.3	0.29	N	120.0 ft²	0 ft 6 in	0 ft 24 in	Drapes/blinds	Exterior 5
	4	N=>W	1	Vinyl	Low-E Double	Yes	0.3	0.29	N	18.0 ft²	0 ft 6 in	0 ft 10 in	None	Exterior 5
	5	N=>W	1	Vinyl	Low-E Double	Yes	0.3	0.29	N	15.0 ft²	0 ft 6 in	0 ft 24 in	Drapes/blinds	Exterior 5
	6	N=>W	1	Vinyl	Low-E Double	Yes	0.3	0.29	N	5.0 ft²	0 ft 6 in	0 ft 10 in	None	Exterior 5
	7	S=>E	2	Vinyl	Low-E Double	Yes	0.3	0.29	N	25.0 ft²	0 ft 6 in	0 ft 24 in	Drapes/blinds	Exterior 5
	8	S=>E	2	Vinyl	Low-E Double	Yes	0.3	0.29	N	5.0 ft²	0 ft 6 in	0 ft 10 in	None	Exterior 5
	9	S=>E	2	Vinyl	Low-E Double	Yes	0.3	0.29	N	60.0 ft²	0 ft 6 in	0 ft 24 in	Drapes/blinds	Exterior 5
	10	S=>E	2	Vinyl	Low-E Double	Yes	0.3	0.29	N	12.0 ft²	0 ft 6 in	0 ft 10 in	None	Exterior 5
	11	E=>N	3	Vinyl	Low-E Double	Yes	0.3	0.29	N	3.0 ft²	0 ft 6 in	0 ft 25 in	None	Exterior 5

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000172	910.3	49.98	93.99	.0605	3

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
	1	Electric Heat Pump/	None	HSPF:8.2	36.9 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
	1	Central Unit/	None	SEER: 14	36 kBtu/hr	1080 cfm	0.75	1	sys#1

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INPUT SUMMARY CHECKLIST REPORT

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
	1	Electric	None	Main	0.91	50 gal	60 gal	120 deg	None

SOLAR HOT WATER SYSTEM

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

DUCTS

√	#	Supply Location	Supply R-Value	Supply Area	Return Location	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
	1	Attic	6	120 ft²	Main	0 ft²	Default Leakage	Main	(Default)	(Default)			1	1

TEMPERATURES

Programable Thermostat: N

Ceiling Fans:

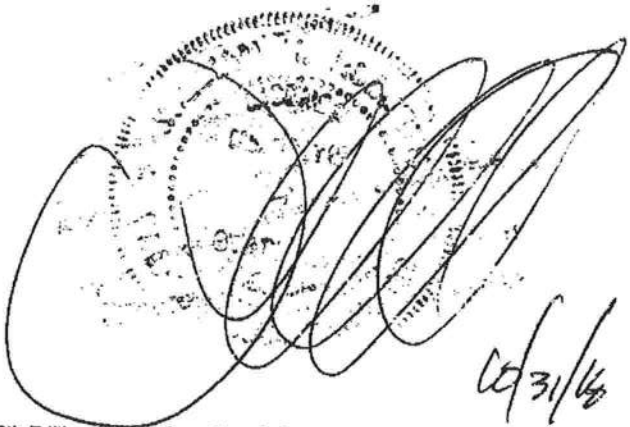
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]
Heating	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]
Venting	[ ]	[ ]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[ ]

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	78	78	78	78
	PM	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
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	68	68	68	68	68	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68
Heating (WEH)	AM	68	68	68	68	68	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
Default(8 lbs/sq.ft.	0 ft²	0 ft	0.3	Main



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ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 96

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. Yes
6. Conditioned floor area (sq. ft.)	6. 2100
7. Windows, type and area	
a) U-factor:(weighted average)	7a. 0.300
b) Solar Heat Gain Coefficient (SHGC)	7b. 0.290
c) Area	7c. 317.0
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.
b) Wood, raised (R-value)	9b. 11.0
c) Concrete, raised (R-value)	9c.
10. Wall type and insulation:	
A. Exterior:	
1. Wood frame (Insulation R-value)	10A1. 11.0
2. Masonry (Insulation R-value)	10A2.
B. Adjacent:	
1. Wood frame (Insulation R-value)	10B1.
2. Masonry (Insulation R-value)	10B2.
11. Ceiling type and insulation level	
a) Under attic	11a. 33.0
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	Main
13. Cooling system:	Capacity 36.0
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 36.9
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 0.91
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	
b) Cross ventilation	No
c) Whole house fan	No
d) Multizone cooling credit	
e) Multizone heating credit	
f) Programmable thermostat	No

*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: 12-2-2020

Address of New Home: 16085 Sunview St City/FL Zip: FL Ft. White 32038

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Florida dbpr Department of Business & Professional Regulation

FLA Manufactured Building Program
2601 Blair Stone Road
Tallahassee, Florida 32399-0772
Phone: 850.487.1824 • Fax: 850.414.8436

Halsey Beshears, Secretary

Ron DeSantis, Governor

October 11, 2019

BRUCE BUSSELL

Palm Harbor Homes, Inc. - PC
605 South Frontage Road
Plant City, FL 33563

RE: Manufacturer Certification, ID MFT-95; Expiration Date: October 10, 2022

Dear BRUCE BUSSELL

It is my pleasure to inform you that Palm Harbor Homes, Inc. - PC, located at 605 SOUTH FRONTAGE ROAD, PLANT CITY, FL 33563, has been approved under the Manufactured Buildings Program, as provided for under Chapter 553, Part I, Florida Statutes, to manufacture Storage Sheds, Manufactured Buildings for installation in Florida.

Construction or modification on a manufactured building cannot begin until the Third Party Agency has approved the plans in accordance with the current Florida Building Code. Your Third Party Agency is a contractor for the Department and has statutory authority and responsibilities that must be met to maintain approved status. You may expect and demand quality plans review and inspections.

Each Code change will make your plans obsolete until they have been reviewed, approved and indicated [on the cover page of the plans] for compliance with the Code by your Third Party Agency for plans review. Please ensure that your plans are in compliance and are properly posted on our website. All site-related installation issues are subject to the local authority having jurisdiction.

The Department's contractor will make unannounced monitoring visits at least once each year. You must grant complete access to your manufacturing facility and records to remain in compliance with the rules and regulations of this program.

Your certification is approved for three years from this date. You will receive a renewal notice by Email generated by the BCIS (www.floridabuilding.org) for online renewal. If you have questions you may contact Robert Lorenzo at 850-717-1835 or our FAX at 850-414-8436.

Please visit our website at www.floridabuilding.org to see valuable information on the Florida Manufactured Buildings Program. A copy of this letter must accompany applications for local building permits.

Sincerely,

Robert Lorenzo
Manufactured Buildings Program

cc: Hilborn Werner Carter And Assoc., Inc.