FORM R405-2023

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Wehinger Residence	Builder Name:	
Street:		Permit Office:	
City, State, Zip:	, FL,	Permit Number:	
Owner:		Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia(Florida Climate Zone 2)

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	3
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	2069
Conditioned floor area below grade (ft²)	0

7. Windows(315.0 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.26	315.00 ft²
SHGC:	SHGC=0.20	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		1.500 ft
Area Weighted Average SHGC:		0.200

8. Skylights	Description	Area
U-Factor:(AVG)	N/A	N/A ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R= 0.0	1620.00 ft²
b. Floor Over Other Space	R= 0.0	449.00 ft²
c. N/A	R=	ft²

10. Wall Types(1961.3 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1677.30 ft²
b. Interior Frame - Wood, Interior	R=13.0	284.00 ft²
c. N/A		
d. N/A		

11. Ceiling Types(2069.0 sqft.)	Insulation	Area
a. Single assembly, no ai (Unvented)	R=30.0	2069.00 ft²
b. N/A		
c. N/A		

12. Roof(Metal, Unvent)	Deck R=30.0	2109 ft²

13. Ducts, location & insulation level	R	ft²
a. Sup: Main, Ret: Main, AH: Main	6	414
b.		
c.		

14. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	36.0	SEER2:14.80

15. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	36.0	HSPF2:7.50

16. Hot Water Systems	
a. ElectricTankless	Cap: 1 gallons
	EF: 0.920
b. Conservation features	None
17. Credits	CF, Pstat

Glass/Floor Area: 0.152

Total Proposed Modified Loads: 43.39

Total Baseline Loads: 57.56

PASS

NOTE: Proposed residence must have annual total normalized Modified Loads that are less than or equal to 95 percent of the annual total loads of the standard reference design in order to comply.

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

PREPARED BY: _____

DATE: 1-29-24

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 with a proposed duct leakage Qn requires a PERFORMANCE 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.

- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 4.72 ACH50 (R402.4.1.2).

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Wehinger Residence			Address type:	Street Address
Building Type:	User	Bedrooms:	3	Lot #:	---
Owner:		Conditioned Area:	2069	Block/SubDivision:	---
Builder Home ID:		Total Stories:	2	PlatBook:	---
Builder Name:		Worst Case:	No	Street:	
Permit Office:		Rotate Angle:	0	County:	Columbia
Jurisdiction:		Cross Ventilation:		City, State, Zip:	,
Family Type:	Detached	Whole House Fan:			FL,
New/Existing:	New (From Plans)	Terrain:	Rural		
Year Construct:	2023	Shielding:	Moderate/Rural		
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_REGIONA	32	92	70	75	1305.5	51	Medium

BLOCKS

√	Number	Name	Area	Volume
___	1	Block1	2069	18172 cu ft

SPACES

√	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___	1	Main	1620	14580	Yes	2	1	Yes	Yes	Yes
___	2	Second Floor	449	3592	No	4	2	Yes	Yes	Yes

FLOORS (Total Exposed Area = 1620 sq.ft.)

√	#	Floor Type	Space	Exposed Perim(ft)	Area	R-Value Perim.	R-Value Joist	U-Factor	Slab Insul. Vert/Horiz	Tile	Wood	Carpet
___	1	Slab-On-Grade Edge Ins	Main	168	1620 sqft	0	---	0.563	2 (ft)/0 (ft)	0.20	0.60	0.20
___	2	Floor Over Other Space	Second Floor	---	449 sqft	---	0	0.239	-------	0.20	0.60	0.20

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	Metal	2109 ft²	676 ft²	Unfinished, Galvalum	N	0.35	No	0.4	No	30	39.81

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___	1	No attic	Unvented	0	1620 ft²	N	N

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

CEILING (Total Exposed Area = 2069 sq.ft.)

√	#	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
	1	Single assembly, no airspace(Unvented)	Main	30.0	Blown	1620.0ft²	0.032	0.11	Wood
	2	Single assembly, no airspace(Unvented)	Second Floor	30.0	Blown	449.0ft²	0.032	0.11	Wood

WALLS (Total Exposed Area = 1677 sq.ft.)

√	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
	1	N	Exterior	Frame - Wood	Main	13.0	54.0	0	9.0	0	486.0	0.094		0.23	0.75	0 %
	2	E	Exterior	Frame - Wood	Main	13.0	30.0	0	9.0	0	270.0	0.094		0.23	0.75	0 %
	3	S	Exterior	Frame - Wood	Main	13.0	54.0	0	9.0	0	486.0	0.094		0.23	0.75	0 %
	4	W	Exterior	Frame - Wood	Main	13.0	30.0	0	9.0	0	270.0	0.094		0.23	0.75	0 %
	5	N	Main	Interior Fr. Wood	Second Floor	13.0	27.0	0	6.0	0	162.0	0.095		0.23	0.75	0 %
	6	E	Exterior	Frame - Wood	Second Floor	13.0	20.0	8	8.0	0	165.3	0.094		0.23	0.75	0 %
	7	S	Main	Interior Fr. Wood	Second Floor	13.0	20.0	4	6.0	0	122.0	0.095		0.23	0.75	0 %

DOORS (Total Exposed Area = 116 sq.ft.)

√	#	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
	1	N	Exterior	Insulated	Main	None	0.40	6.00	0	8.00	0	48.0ft²
	2	E	Exterior	Insulated	Main	None	0.40	3.00	0	6.00	8	20.0ft²
	3	S	Exterior	Insulated	Main	None	0.40	6.00	0	8.00	0	48.0ft²

WINDOWS (Total Exposed Area = 315 sq.ft.)

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Storm	Total Area (ft²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft)	Sep. (ft)	Interior Shade	Screen
	1	N	1	Vinyl	Low-E Double	Y	0.26	0.20	N	N	48.0	4	3.00	4.00	1.5	2.3	None	None
	2	E	2	Vinyl	Low-E Double	Y	0.26	0.20	N	N	45.0	3	3.00	5.00	1.5	2.3	None	None
	3	S	3	Vinyl	Low-E Double	Y	0.26	0.20	N	N	108.0	6	3.00	6.00	1.5	2.3	None	None
	4	S	3	Vinyl	Low-E Double	Y	0.26	0.20	N	N	12.0	1	2.00	6.00	1.5	2.3	None	None
	5	W	4	Vinyl	Low-E Double	Y	0.26	0.20	N	N	72.0	4	3.00	6.00	1.5	2.3	None	None
	6	E	6	Vinyl	Low-E Double	Y	0.26	0.20	N	N	30.0	2	3.00	5.00	1.5	2.3	None	None

INFILTRATION

√	#	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
	1	Wholehouse	Proposed ACH(50)	0.00026	1430	78.43	147.24	0.1267	4.7	All	18172 cu ft

MASS

√	#	Mass Type	Area	Thickness	Furniture Fraction	Space
	1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Main
	2	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Second Floor

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

HEATING SYSTEM

√	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump---- Entry	Power	Volt	Current	Ducts	Block
___	1	Electric Heat Pump	None/Single		HSPF2: 7.50	36.0		0.00	0.00	0.00	sys#1	1

COOLING SYSTEM

√	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___	1	Central Unit	None/Single		SEER2:14.8	36.0	1080	0.85	sys#1	1

HOT WATER SYSTEM

√	#	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___	1	Electric	Tankless	Exterior	0.92 (0.92)	1.00 gal	60 gal	120 deg	Standard	None	99

		Recirculation System	Recirc Control Type	Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits
___	1	No		NA	NA	NA	No	NA	NA	NA	None

DUCTS

√	Duct #	Supply Location	Supply R-Value	Supply Area	Return Location	Return R-Value	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
___	1	Main	6.0	414 ft²	Main	6.0	103 ft²	Prop. Leak Free	Main	---	---	0.030	0.50	1	1

TEMPERATURES

Programable Thermostat: Y Ceiling Fans: N

	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	80	80	78	78	78	78	78	78	78	78
___	Cooling (WEH)	AM	78	78	78	78	78	78	78	78	80	80	80	80
		PM	80	80	80	80	78	78	78	78	78	78	78	78
___	Heating (WD)	AM	65	65	65	65	65	65	65	68	68	68	68	68
		PM	68	68	68	68	68	68	68	68	68	68	68	68
___	Heating (WEH)	AM	65	65	65	65	65	65	65	68	68	68	68	68
		PM	68	68	68	68	68	68	68	68	68	68	68	68

FORM R405-2023

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 75

The lower the EnergyPerformance Index, the more efficient the home.

,,FL,

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		3
5. Is this a worst case?		No
6. Conditioned floor area above grade (ft²)		2069
Conditioned floor area below grade (ft²)		0

7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.26	315.00 ft²
SHGC:	SHGC=0.20	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		1.500 ft
Area Weighted Average SHGC:		0.200

8. Skylights	Description	Area
U-Factor:(AVG)	N/A	N/A ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R= 0.0	1620.00 ft²
b. Floor Over Other Space	R= 0.0	449.00 ft²
c. N/A	R=	ft²

10. Wall Types(1961.3 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1677.30 ft²
b. Interior Frame - Wood, Interior	R=13.0	284.00 ft²
c. N/A		
d. N/A		

11. Ceiling Types(2069.0 sqft.)	Insulation	Area
a. Single assembly, no ai (Unvented)	R=30.0	2069.00 ft²
b. N/A		
c. N/A		

12. Roof(Metal, Unvent)	Deck	R=30.0	2109 ft²

13. Ducts, location & insulation level	R	ft²
a. Sup: Main, Ret: Main, AH: Main	6	414
b.		
c.		

14. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	36.0	SEER2:14.80

15. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	36.0	HSPF2:7.50

16. Hot Water Systems	
a. ElectricTankless	Cap: 1 gallons
	EF: 0.920
b. Conservation features	
	None
17. Credits	CF, Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction 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: ,FL,

*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

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

Residential System Sizing Calculation

Summary

Project Title:
Wehinger Residence

, FL

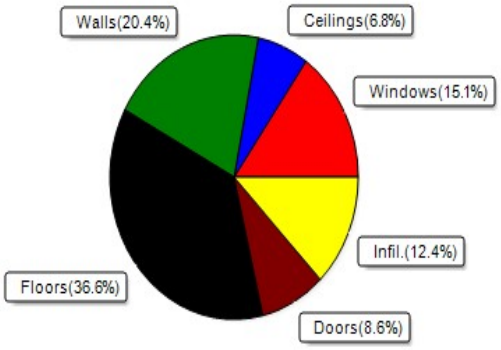
1/29/2024

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(100 ft.) Temp Range(M) Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)					
Winter design temperature(TMY3 99%)	30	F	Summer design temperature(TMY3 99%)	94	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	40	F	Summer temperature difference	19	F
Total heating load calculation	**21644**	**Btuh**	**Total cooling load calculation**	**18609**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	166.3	36000	Sensible (SHR = 0.85)	193.5	30600
Heat Pump + Auxiliary(0.0kW)	166.3	36000	Latent	193.4	5400
			Total (Electric Heat Pump)	193.5	36000

WINTER CALCULATIONS

Winter Heating Load (for 2069 sqft)

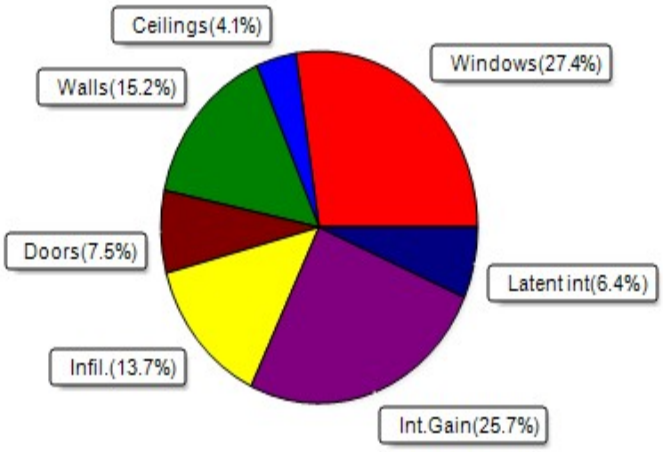
Load component			Load	
Window total	315	sqft	3276	Btuh
Wall total	1530	sqft	4425	Btuh
Door total	116	sqft	1856	Btuh
Ceiling total	2069	sqft	1465	Btuh
Floor total	See detail report		7930	Btuh
Infiltration	61	cfm	2693	Btuh
Duct loss			0	Btuh
Subtotal			**21644**	**Btuh**
Ventilation	Ex:0 cfm; Sup:0 cfm		0	Btuh
TOTAL HEAT LOSS			**21644**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2069 sqft)

Load component			Load	
Window total	315	sqft	5097	Btuh
Wall total	1530	sqft	2821	Btuh
Door total	116	sqft	1392	Btuh
Ceiling total	2069	sqft	768	Btuh
Floor total			0	Btuh
Infiltration	46	cfm	959	Btuh
Internal gain			4780	Btuh
Duct gain			0	Btuh
Sens.Ventilation	Ex:0 cfm; Sup:0 cfm		0	Btuh
Blower Load			0	Btuh
Total sensible gain			**15817**	**Btuh**
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			1592	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1200	Btuh
Total latent gain			**2792**	**Btuh**
TOTAL HEAT GAIN			**18609**	**Btuh**



Powered by ACCA MANUAL J8 8th Edition

EnergyGauge® System Sizing
PREPARED BY: _____
DATE: 1-29-24

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Project Title:
Wehinger Residence

, FL

1/29/2024

Reference City: Gainesville, FL (Defaults)
Humidity difference: 51gr.

Temperature Difference: 19.0F(TMY3 99%)
Summer Setpoint: 75 °F (Required Manual J default)

Component Loads for Whole House

	Type*					Overhang		Window Area(sqft)			HTM		Load	
Window	Panes	SHGC	U	InSh	IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	2 NFRC	0.20, 0.26		No	No	N	1.5ft	2.3ft	48.0	0.0	48.0	9	9	439	Btuh
2	2 NFRC	0.20, 0.26		No	No	E	1.5ft	2.3ft	45.0	0.0	45.0	9	24	1090	Btuh
3	2 NFRC	0.20, 0.26		No	No	S	1.5ft	2.3ft	108.0	108.0	0.0	9	11	988	Btuh
4	2 NFRC	0.20, 0.26		No	No	S	1.5ft	2.3ft	12.0	12.0	0.0	9	11	110	Btuh
5	2 NFRC	0.20, 0.26		No	No	W	1.5ft	2.3ft	72.0	0.0	72.0	9	24	1744	Btuh
6	2 NFRC	0.20, 0.26		No	No	E	1.5ft	2.3ft	30.0	0.0	30.0	9	24	727	Btuh
	Window Total								315 (sqft)					5097	Btuh

Walls	Type	U-Value	R-Value	Area(sqft)	HTM	Load	
			Cav/Sheath				
1	Frame - Wood - Ext	0.09	13.0/0.0	390.0	2.3	883	Btuh
2	Frame - Wood - Ext	0.09	13.0/0.0	205.0	2.3	464	Btuh
3	Frame - Wood - Ext	0.09	13.0/0.0	318.0	2.3	720	Btuh
4	Frame - Wood - Ext	0.09	13.0/0.0	198.0	2.3	448	Btuh
5	Frame - Wood - Int	0.09	13.0/0.0	162.0	0.0	0	Btuh
6	Frame - Wood - Ext	0.09	13.0/0.0	135.3	2.3	306	Btuh
7	Frame - Wood - Int	0.09	13.0/0.0	122.0	0.0	0	Btuh
	Wall Total			1530 (sqft)		2821	Btuh

Doors	Type	Area (sqft)	HTM	Load	
1	Insulated - Exterior	48.0	12.0	576	Btuh
2	Insulated - Exterior	20.0	12.0	240	Btuh
3	Insulated - Exterior	48.0	12.0	576	Btuh
	Door Total	116 (sqft)		1392	Btuh

Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load	
1	SnglAsmb no airsp/Light/Metal	0.018	30.0/30.0	1620.0	0.37	601	Btuh
2	SnglAsmb no airsp/Light/Metal	0.018	30.0/30.0	449.0	0.37	167	Btuh
	Ceiling Total			2069 (sqft)		768	Btuh

Floors	Type	R-Value	Size	HTM	Load	
1	Slab On Grade	0.0	1620 (ft-perimeter)	0.0	0	Btuh
2	Interior	0.0	449 (sqft)	0.0	0	Btuh
	Floor Total		2069.0 (sqft)		0	Btuh

	Envelope Subtotal:	10078	Btuh

Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=	Load	
	Natural	0.15	18172	1	46.0	959	Btuh
Internal gain		Occupants	Btuh/occupant		Appliance	Load	
		6	X 230	+	3400	4780	Btuh
				Sensible Envelope Load:		15817	Btuh
Duct load	Extremely sealed, Supply(R6.0-Condi), Return(R6.0-Condi)			(DGM of 0.000)		0	Btuh
				Sensible Load All Zones		**15817**	**Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Wehinger Residence

, FL

1/29/2024

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**15817 Btuh**
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	**15817 Btuh**
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**15817 Btuh**
	Latent infiltration gain (for 51 gr. humidity difference)	1592 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (6.0 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**2792 Btuh**
	TOTAL GAIN	**18609 Btuh**

EQUIPMENT

1. Central Unit	#	36000 Btuh

*Key: Window types (Panes - Number and type of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value)
(U - Window U-Factor)
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
- For Blinds: Assume medium color, half closed
For Draperies: Assume medium weave, half closed
For Roller shades: Assume translucent, half closed
(IS - Insect screen: none(N), Full(F) or Half(½))
(Ornt - compass orientation)

Version 8

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Project Title:
Wehinger Residence
, FL Building Type: User

1/29/2024

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 °F (TMY3 99%)
Winter Setpoint: 70 °F (Required Manual J default)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft) X	HTM=	Load
1	2, NFRC 0.20	Vinyl	0.26	N	48.0	10.4	499 Btuh
2	2, NFRC 0.20	Vinyl	0.26	E	45.0	10.4	468 Btuh
3	2, NFRC 0.20	Vinyl	0.26	S	108.0	10.4	1123 Btuh
4	2, NFRC 0.20	Vinyl	0.26	S	12.0	10.4	125 Btuh
5	2, NFRC 0.20	Vinyl	0.26	W	72.0	10.4	749 Btuh
6	2, NFRC 0.20	Vinyl	0.26	E	30.0	10.4	312 Btuh
	Window Total				315.0(sqft)		3276 Btuh

Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	390	3.55	1385 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	205	3.55	728 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	318	3.55	1129 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	198	3.55	703 Btuh
5	Frame - Wood	- Int	(0.089)	13.0/0.0	162	0.00	0 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	135	3.55	480 Btuh
7	Frame - Wood	- Int	(0.089)	13.0/0.0	122	0.00	0 Btuh
	Wall Total				1530(sqft)		4425 Btuh

Doors	Type	Storm	Ueff.		Area X	HTM=	Load
1	Insulated - Exterior,	n	(0.400)		48	16.0	768 Btuh
2	Insulated - Exterior,	n	(0.400)		20	16.0	320 Btuh
3	Insulated - Exterior,	n	(0.400)		48	16.0	768 Btuh
	Door Total				116(sqft)		1856Btuh

Ceilings	Type/Color/Surface	Ueff.	R-Value	Area X	HTM=	Load
1	Single as/L/Metal	(0.018)	30.0/30.0	1620	0.71	1147 Btuh
2	Single as/L/Metal	(0.018)	30.0/30.0	449	0.71	318 Btuh
	Ceiling Total			2069(sqft)		1465Btuh

Floors	Type	Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade	(1.180)	0.0	168.0 ft(perim.)	47.2	7930 Btuh
2	Interior	(1.180)	0.0	449.0 sqft	0.0	0 Btuh
	Floor Total			2069 sqft		7930 Btuh

	Envelope Subtotal:	18951 Btuh

Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=	
	Natural		0.20	18172	1.00	61.4	2693 Btuh

Duct load	Extremely sealed, R6.0, Supply(Con), Return(Con) (DLM of 0.000)	0 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Project Title:
Wehinger Residence
Building Type: User

, FL

1/29/2024

All Zones	**Sensible Subtotal All Zones**	**21644 Btuh**

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sens. Heat Loss Total Heat Loss	(Ex:0 cfm; Sup:0 cfm)	21644 Btuh 0 Btuh 21644 Btuh

EQUIPMENT

1. Electric Heat Pump	#	36000 Btuh

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)
U - (Window U-Factor)
HTM - (ManualJ Heat Transfer Multiplier)

Version 8