

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

## Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Nowrey Residence Street: City, State, Zip: , FL, Owner: Design Location: FL, Gainesville	Builder Name: Permit Office: Permit Number: Jurisdiction: County: Columbia(Florida Climate Zone 2)
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Glass/Floor Area: 0.121	Total Proposed Modified Loads: 41.44	PASS
	Total Baseline Loads: 52.53	

<p>I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.</p> <p>PREPARED BY:  _____</p> <p>DATE: 12-11-23 _____</p> <p>I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.</p> <p>OWNER/AGENT: _____</p> <p>DATE: _____</p>	<p>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.</p> <div style="text-align: center;"> </div> <p>BUILDING OFFICIAL: _____</p> <p>DATE: _____</p>
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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 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 4.89 ACH50 (R402.4.1.2).

**INPUT SUMMARY CHECKLIST REPORT****PROJECT**

Title:	Nowrey Residence	Bedrooms:	3	Address type:	Street Address
Building Type:	User	Conditioned Area:	2078	Lot #:	---
Owner:		Total Stories:	1	Block/SubDivision:	---
Builder Home ID:		Worst Case:	No	PlatBook:	---
Builder Name:		Rotate Angle:	0	Street:	
Permit Office:		Cross Ventilation:		County:	Columbia
Jurisdiction:		Whole House Fan:		City, State, Zip:	, FL,
Family Type:	Detached	Terrain:	Rural		
New/Existing:	New (From Plans)	Shielding:	Moderate/Rural		
Year Construct:	2023				
Comment:					

**CLIMATE**

<input checked="" type="checkbox"/> Design Location	Tmy Site	Design Temp	97.5%	2.5%	Int Design Temp	Winter	Summer	Heating Degree Days	Design Moisture	Daily temp Range
___ FL, Gainesville	FL_GAINESVILLE_REGIONA	32	92		70	75	1305.5	51		Medium

**BLOCKS**

<input checked="" type="checkbox"/> Number	Name	Area	Volume
___ 1	Block1	2078	18702 cu ft

**SPACES**

<input checked="" type="checkbox"/> Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___ 1	Main	2078	18702	Yes	6	3	Yes	Yes	Yes

**FLOORS**

(Total Exposed Area = 2078 sq.ft.)

<input checked="" type="checkbox"/> #	Floor Type	Space	Exposed Perim	Perimeter R-Value	Area	U-Factor	Joist R-Value	Tile	Wood	Carpet
___ 1	Slab-On-Grade Edge Ins	Main	234	0	2078 ft	0.563	---	0.20	0.60	0.20

**ROOF**

<input checked="" type="checkbox"/> #	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	2497 ft²	692 ft²	Dark	N	0.96	No	0.9	No	30	33.69

**ATTIC**

<input checked="" type="checkbox"/> #	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___ 1	No attic	Unvented	0	2078 ft²	N	N

**CEILING**

(Total Exposed Area = 2078 sq.ft.)

<input checked="" type="checkbox"/> #	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___ 1	Single assembly, no airspace(Unvented)	Main	30.0	Blown	2078.0ft²	0.032	0.11	Wood

# INPUT SUMMARY CHECKLIST REPORT

WALLS														(Total Exposed Area = 1971 sq.ft.)		
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade	
___ 1	N	Exterior	Frame - Wood	Main	13.0	61.0	0	10.0	0	610.0	0.094		0.23	0.75	0 %	
___ 2	E	Exterior	Frame - Wood	Main	13.0	5.0	0	9.0	0	45.0	0.094		0.23	0.75	0 %	
___ 3	N	Exterior	Frame - Wood	Main	13.0	5.0	0	9.0	0	45.0	0.094		0.23	0.75	0 %	
___ 4	E	Exterior	Frame - Wood	Main	13.0	18.0	8	9.0	0	168.0	0.094		0.23	0.75	0 %	
___ 5	S	Garage	Frame - Wood	Main	13.0	29.0	10	9.0	0	268.5	0.094		0.23	0.75	0 %	
___ 6	S	Exterior	Frame - Wood	Main	13.0	20.0	0	10.0	0	200.0	0.094		0.23	0.75	0 %	
___ 7	W	Exterior	Frame - Wood	Main	13.0	2.0	10	10.0	0	28.3	0.094		0.23	0.75	0 %	
___ 8	S	Exterior	Frame - Wood	Main	13.0	7.0	2	10.0	0	71.7	0.094		0.23	0.75	0 %	
___ 9	E	Exterior	Frame - Wood	Main	13.0	6.0	0	9.0	0	54.0	0.094		0.23	0.75	0 %	
___ 10	S	Exterior	Frame - Wood	Main	13.0	15.0	10	9.0	0	142.5	0.094		0.23	0.75	0 %	
___ 11	W	Exterior	Frame - Wood	Main	13.0	37.0	6	9.0	0	337.5	0.094		0.23	0.75	0 %	

DOORS												(Total Exposed Area = 132 sq.ft.)		
✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area			
___ 1	N	Exterior	Insulated	Main	None	0.40	5.00	0	8.00	0	40.0ft²			
___ 2	N	Exterior	Insulated	Main	None	0.40	6.00	0	8.00	0	48.0ft²			
___ 3	S	Garage	Insulated	Main	None	0.40	3.00	0	6.00	8	20.0ft²			
___ 4	S	Exterior	Insulated	Main	None	0.40	3.00	0	8.00	0	24.0ft²			

WINDOWS																	(Total Exposed Area = 251 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	90.0	5	3.00	6.00	1.5	2.3	None	None		
___ 2	N	1	Vinyl	Low-E Double	Y	0.26	0.20	N	N	12.0	1	3.00	4.00	1.5	2.3	None	None		
___ 3	E	4	Vinyl	Low-E Double	Y	0.26	0.20	N	N	18.0	1	3.00	6.00	1.5	2.3	None	None		
___ 4	S	6	Vinyl	Low-E Double	Y	0.26	0.20	N	N	54.0	3	3.00	6.00	1.5	2.3	None	None		
___ 5	S	8	Vinyl	Low-E Double	Y	0.26	0.20	N	N	16.0	2	1.00	8.00	1.5	2.3	None	None		
___ 6	S	10	Vinyl	Low-E Double	Y	0.26	0.20	N	N	25.0	2	2.50	5.00	1.5	2.3	None	None		
___ 7	W	11	Vinyl	Low-E Double	Y	0.26	0.20	N	N	36.0	3	2.00	6.00	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)	0.00028	1524	83.62	156.99	0.1004	4.9	All	18702 cu ft

GARAGE					
✓ #	Floor Area	Roof Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
___ 1	544 ft²	544 ft²	68 ft	9 ft	1

MASS					
✓ #	Mass Type	Area	Thickness	Furniture Fraction	Space
___ 1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Main

# INPUT SUMMARY CHECKLIST REPORT

## HEATING SYSTEM

✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	---Geothermal HeatPump---			Ducts	Block
						Entry	Power	Volt Current		
___ 1	Electric Heat Pump	None/Single		HSPF2: 7.80	42.0	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		SEER2:15.0	42.0	1260	0.85	sys#1	1

## HOT WATER SYSTEM

✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___ 1	Propane	Tankless	Exterior	0.59 (0.59)	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-----		-----Return-----			Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	QN	RLF	HVAC #		
	Location	R-Value	Area	Location	R-Value							Area	Heat	Cool
___ 1	Main	6.0	416 ft²	Main	6.0	104 ft²	Prop. Leak Free	Garage	---	---	0.03	0.50	1	1

## TEMPERATURES

Programable Thermostat: Y				Ceiling Fans: N											
Cooling	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input 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 type="checkbox"/> Dec			
Heating	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" 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 checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec			
Venting	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" 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 PM	78 80	78 80	78 80	78 80	78 80	78 80	78 80	78 80	78 80	80 78	80 78	80 78	80 78	
___ Cooling (WEH)	AM PM	78 80	78 80	78 80	78 80	78 80	78 80	78 80	78 80	78 80	80 78	80 78	80 78	80 78	
___ Heating (WD)	AM PM	65 68	65 68	65 68	65 68	65 68	65 68	65 68	65 68	68 68	68 68	68 68	68 68	68 68	
___ Heating (WEH)	AM PM	65 68	65 68	65 68	65 68	65 68	65 68	65 68	65 68	68 68	68 68	68 68	68 68	68 68	

# Residential System Sizing Calculation

## Summary

Project Title:  
Nowrey Residence

, FL

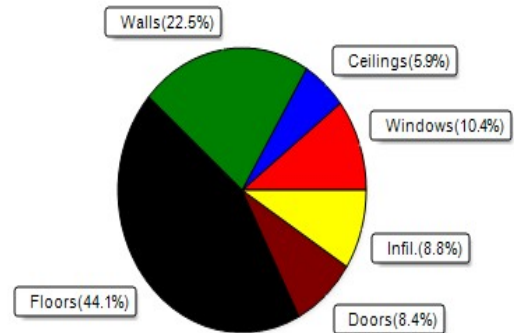
12/12/2023

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
<b>Total heating load calculation</b>	<b>25072</b>	<b>Btuh</b>	<b>Total cooling load calculation</b>	<b>17167</b>	<b>Btuh</b>
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	167.5	42000	Sensible (SHR = 0.85)	243.4	35700
Heat Pump + Auxiliary(0.0kW)	167.5	42000	Latent	252.1	6300
			<b>Total (Electric Heat Pump)</b>	<b>244.7</b>	<b>42000</b>

## WINTER CALCULATIONS

Winter Heating Load (for 2078 sqft)

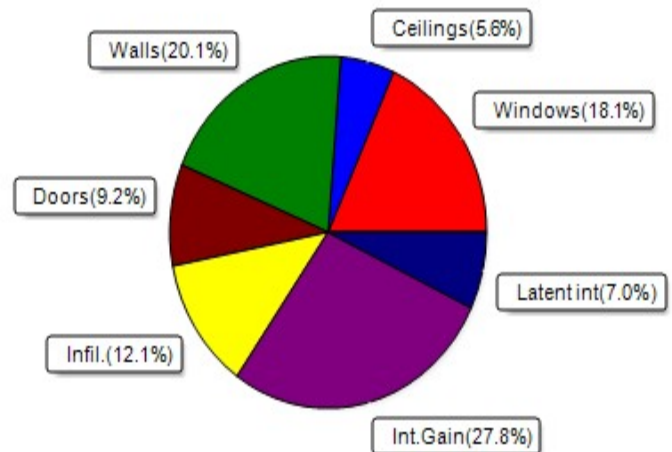
Load component	Load	
Window total	251 sqft	2610 Btuh
Wall total	1587 sqft	5636 Btuh
Door total	132 sqft	2112 Btuh
Ceiling total	2078 sqft	1471 Btuh
Floor total	2078 sqft	11045 Btuh
Infiltration	50 cfm	2197 Btuh
Duct loss		0 Btuh
<b>Subtotal</b>		<b>25072 Btuh</b>
Ventilation	Ex:0 cfm; Sup:0 cfm	0 Btuh
<b>TOTAL HEAT LOSS</b>		<b>25072 Btuh</b>



## SUMMER CALCULATIONS

Summer Cooling Load (for 2078 sqft)

Load component	Load	
Window total	251 sqft	3116 Btuh
Wall total	1587 sqft	3450 Btuh
Door total	132 sqft	1584 Btuh
Ceiling total	2078 sqft	956 Btuh
Floor total		0 Btuh
Infiltration	38 cfm	783 Btuh
Internal gain		4780 Btuh
Duct gain		0 Btuh
Sens.Ventilation	Ex:0 cfm; Sup:0 cfm	0 Btuh
Blower Load		0 Btuh
<b>Total sensible gain</b>		<b>14668 Btuh</b>
Latent gain(ducts)		0 Btuh
Latent gain(infiltration)		1299 Btuh
Latent gain(ventilation)		0 Btuh
Latent gain(internal/occupants/other)		1200 Btuh
<b>Total latent gain</b>		<b>2499 Btuh</b>
<b>TOTAL HEAT GAIN</b>		<b>17167 Btuh</b>



8th Edition

EnergyGauge® System Sizing

PREPARED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

12-11-23

# System Sizing Calculations - Summer

## Residential Load - Whole House Component Details

Project Title:  
Nowrey Residence

, FL

12/12/2023

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

Window	Type*					Overhang		Window Area(sqft)			HTM		Load	
	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	90.0	0.0	90.0	9	9	823	Btuh
2	2 NFRC	0.20, 0.26	No	No	N	1.5ft	2.3ft	12.0	0.0	12.0	9	9	110	Btuh
3	2 NFRC	0.20, 0.26	No	No	E	1.5ft	2.3ft	18.0	0.0	18.0	9	24	436	Btuh
4	2 NFRC	0.20, 0.26	No	No	S	1.5ft	2.3ft	54.0	54.0	0.0	9	11	494	Btuh
5	2 NFRC	0.20, 0.26	No	No	S	1.5ft	2.3ft	16.0	12.4	3.6	9	11	152	Btuh
6	2 NFRC	0.20, 0.26	No	No	S	1.5ft	2.3ft	25.0	25.0	0.0	9	11	229	Btuh
7	2 NFRC	0.20, 0.26	No	No	W	1.5ft	2.3ft	36.0	0.0	36.0	9	24	872	Btuh
Window Total								251 (sqft)					3116 Btuh	
Walls	Type	U-Value	R-Value	Area(sqft)		HTM		Load						
				Cav/Sheath										
1	Frame - Wood - Ext	0.09	13.0/0.0	420.0		2.3		951 Btuh						
2	Frame - Wood - Ext	0.09	13.0/0.0	45.0		2.3		102 Btuh						
3	Frame - Wood - Ext	0.09	13.0/0.0	45.0		2.3		102 Btuh						
4	Frame - Wood - Ext	0.09	13.0/0.0	150.0		2.3		340 Btuh						
5	Frame - Wood - Adj	0.09	13.0/0.0	248.5		1.7		419 Btuh						
6	Frame - Wood - Ext	0.09	13.0/0.0	146.0		2.3		330 Btuh						
7	Frame - Wood - Ext	0.09	13.0/0.0	28.3		2.3		64 Btuh						
8	Frame - Wood - Ext	0.09	13.0/0.0	31.7		2.3		72 Btuh						
9	Frame - Wood - Ext	0.09	13.0/0.0	54.0		2.3		122 Btuh						
10	Frame - Wood - Ext	0.09	13.0/0.0	117.5		2.3		266 Btuh						
11	Frame - Wood - Ext	0.09	13.0/0.0	301.5		2.3		682 Btuh						
Wall Total								1587 (sqft)			3450 Btuh			
Doors	Type	Area (sqft)		HTM		Load								
1	Insulated - Exterior	40.0		12.0		480 Btuh								
2	Insulated - Exterior	48.0		12.0		576 Btuh								
3	Insulated - Garage	20.0		12.0		240 Btuh								
4	Insulated - Exterior	24.0		12.0		288 Btuh								
Door Total		132 (sqft)				1584 Btuh								
Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM		Load							
1	SnglAsmb no airsp/DarkShingle	0.018	30.0/30.0	2078.0	0.46		956 Btuh							
Ceiling Total				2078 (sqft)		956 Btuh								
Floors	Type	R-Value		Size	HTM		Load							
1	Slab On Grade	0.0		2078 (ft-perimeter)	0.0		0 Btuh							
Floor Total				2078.0 (sqft)		0 Btuh								
Envelope Subtotal:											9106 Btuh			

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Project Title: Climate:FL\_GAINESVILLE\_REGIONAL\_A  
Nowrey Residence

, FL

12/12/2023

<b>Infiltration</b>	Type Natural	Average ACH 0.12	Volume(cuft) 18702	Wall Ratio 1	CFM= 37.6	Load 783 Btuh
<b>Internal gain</b>		Occupants 6	Btuh/occupant X 230	+	Appliance 3400	Load 4780 Btuh
	Sensible Envelope Load:					14668 Btuh
<b>Duct load</b>	Extremely sealed, Supply(R6.0-Condi), Return(R6.0-Condi) (DGM of 0.000)					0 Btuh
	<b>Sensible Load All Zones</b>					<b>14668 Btuh</b>

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Project Title: Climate:FL\_GAINESVILLE\_REGIONAL\_A  
 Nowrey Residence

, FL

12/12/2023

### WHOLE HOUSE TOTALS

<b>Whole House Totals for Cooling</b>	<b>Sensible Envelope Load All Zones</b>	<b>14668 Btuh</b>
	Sensible Duct Load	0 Btuh
	<b>Total Sensible Zone Loads</b>	<b>14668 Btuh</b>
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	<b>Total sensible gain</b>	<b>14668 Btuh</b>
	Latent infiltration gain (for 51 gr. humidity difference)	1299 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
	<b>Latent total gain</b>	<b>2499 Btuh</b>
	<b>TOTAL GAIN</b>	<b>17167 Btuh</b>

### EQUIPMENT

1. Central Unit	#	42000 Btuh
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\*Key: Window types (Panels - 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:  
Nowrey Residence  
Building Type: User

, FL

12/12/2023

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	90.0		10.4	936 Btuh
2	2, NFRC 0.20	Vinyl	0.26	N	12.0		10.4	125 Btuh
3	2, NFRC 0.20	Vinyl	0.26	E	18.0		10.4	187 Btuh
4	2, NFRC 0.20	Vinyl	0.26	S	54.0		10.4	562 Btuh
5	2, NFRC 0.20	Vinyl	0.26	S	16.0		10.4	166 Btuh
6	2, NFRC 0.20	Vinyl	0.26	S	25.0		10.4	260 Btuh
7	2, NFRC 0.20	Vinyl	0.26	W	36.0		10.4	374 Btuh
Window Total					251.0(sqft)			2610 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	420		3.55	1491 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	45		3.55	160 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	45		3.55	160 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	150		3.55	533 Btuh
5	Frame - Wood	- Adj	(0.089)	13.0/0.0	249		3.55	882 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	146		3.55	518 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	28		3.55	101 Btuh
8	Frame - Wood	- Ext	(0.089)	13.0/0.0	32		3.55	112 Btuh
9	Frame - Wood	- Ext	(0.089)	13.0/0.0	54		3.55	192 Btuh
10	Frame - Wood	- Ext	(0.089)	13.0/0.0	118		3.55	417 Btuh
11	Frame - Wood	- Ext	(0.089)	13.0/0.0	302		3.55	1070 Btuh
Wall Total					1588(sqft)			5636 Btuh
Doors	Type	Storm	Ueff.	R-Value	Area	X	HTM=	Load
1	Insulated - Exterior,	n	(0.400)		40		16.0	640 Btuh
2	Insulated - Exterior,	n	(0.400)		48		16.0	768 Btuh
3	Insulated - Garage,	n	(0.400)		20		16.0	320 Btuh
4	Insulated - Exterior,	n	(0.400)		24		16.0	384 Btuh
Door Total					132(sqft)			2112Btuh
Ceilings	Type/Color/Surface	Ueff.	R-Value	Area	X	HTM=	Load	
1	Single as/D/Shing	(0.018)	30.0/30.0	2078		0.71	1471 Btuh	
Ceiling Total					2078(sqft)			1471Btuh
Floors	Type	Ueff.	R-Value	Size	X	HTM=	Load	
1	Slab On Grade	(1.180)	0.0	234.0 ft(perim.)		47.2	11045 Btuh	
Floor Total					2078 sqft			11045 Btuh
Envelope Subtotal:								22875 Btuh
Infiltration	Type	Wholehouse ACH	Volume(cuft)	Wall Ratio	CFM=	CFM=	Load	
	Natural	0.16	18702	1.00	50.1		2197 Btuh	

# Manual J Winter Calculations

## Residential Load - Component Details (continued)

, FL

Project Title:  
Nowrey Residence  
Building Type: User

12/12/2023

<b>Duct load</b>	Extremely sealed, R6.0, Supply(Con), Return(Con) (DLM of 0.000)	0 Btuh
<b>All Zones</b>	<b>Sensible Subtotal All Zones</b>	<b>25072 Btuh</b>

### WHOLE HOUSE TOTALS

<b>Totals for Heating</b>	Subtotal Sensible Heat Loss Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm) Total Heat Loss	25072 Btuh 0 Btuh 25072 Btuh
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### EQUIPMENT

1. Electric Heat Pump	#	42000 Btuh
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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