

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

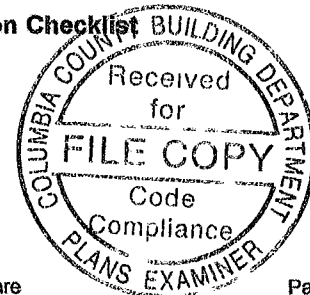
Project Name: Model 1503_4bdrm Street: Rose Point PL City, State, Zip: Lake City, FL, 32024- Owner: N/A Design Location: FL, Gainesville	Builder Name: InnovativeHome Builders Permit Office: Columbia County Permit Number: Jurisdiction:
---	--

<table style="width:100%;"> <tr> <td style="width:30%;">1 New construction or existing</td> <td style="width:30%;">New (From Plans)</td> <td style="width:40%;"></td> </tr> <tr> <td>2 Single family or multiple family</td> <td>Single-family</td> <td></td> </tr> <tr> <td>3. Number of units, if multiple family</td> <td>1</td> <td></td> </tr> <tr> <td>4. Number of Bedrooms</td> <td>4</td> <td></td> </tr> <tr> <td>5. Is this a worst case?</td> <td>No</td> <td></td> </tr> <tr> <td>6. Conditioned floor area above grade (ft²)</td> <td>1503</td> <td></td> </tr> <tr> <td>Conditioned floor area below grade (ft²)</td> <td>0</td> <td></td> </tr> <tr> <td>7. Windows (218.7 sqft.)</td> <td>Description</td> <td>Area</td> </tr> <tr> <td>a. U-Factor</td> <td>DbI, U=0.30</td> <td>218.67 ft²</td> </tr> <tr> <td>SHGC:</td> <td>SHGC=0.50</td> <td></td> </tr> <tr> <td>b. U-Factor</td> <td>N/A</td> <td>ft²</td> </tr> <tr> <td>SHGC:</td> <td></td> <td></td> </tr> <tr> <td>c. U-Factor:</td> <td>N/A</td> <td>ft²</td> </tr> <tr> <td>SHGC:</td> <td></td> <td></td> </tr> <tr> <td>d. U-Factor:</td> <td>N/A</td> <td>ft²</td> </tr> <tr> <td>SHGC:</td> <td></td> <td></td> </tr> <tr> <td colspan="2">Area Weighted Average Overhang Depth:</td> <td>1.500 ft.</td> </tr> <tr> <td colspan="2">Area Weighted Average SHGC:</td> <td>0.500</td> </tr> <tr> <td>8. Floor Types (1503.0 sqft.)</td> <td>Insulation</td> <td>Area</td> </tr> <tr> <td>a. Slab-On-Grade Edge Insulation</td> <td>R=5.0</td> <td>1503.00 ft²</td> </tr> <tr> <td>b. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>c. N/A</td> <td>R=</td> <td>ft²</td> </tr> </table>	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	4		5. Is this a worst case?	No		6. Conditioned floor area above grade (ft²)	1503		Conditioned floor area below grade (ft²)	0		7. Windows (218.7 sqft.)	Description	Area	a. U-Factor	DbI, U=0.30	218.67 ft²	SHGC:	SHGC=0.50		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:		1.500 ft.	Area Weighted Average SHGC:		0.500	8. Floor Types (1503.0 sqft.)	Insulation	Area	a. Slab-On-Grade Edge Insulation	R=5.0	1503.00 ft²	b. N/A	R=	ft²	c. N/A	R=	ft²	<table style="width:100%;"> <tr> <td style="width:30%;">9. Wall Types (1575.0 sqft.)</td> <td style="width:30%;">Insulation</td> <td style="width:40%;">Area</td> </tr> <tr> <td>a. Frame - Wood, Exterior</td> <td>R=13.0</td> <td>1371.00 ft²</td> </tr> <tr> <td>b. Frame - Wood, Adjacent</td> <td>R=13.0</td> <td>204.00 ft²</td> </tr> <tr> <td>c. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>d. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>10. Ceiling Types (1653.0 sqft.)</td> <td>Insulation</td> <td>Area</td> </tr> <tr> <td>a. Under Attic (Vented)</td> <td>R=30.0</td> <td>1653.00 ft²</td> </tr> <tr> <td>b. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>c. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>11. Ducts</td> <td></td> <td>R ft²</td> </tr> <tr> <td>a. Sup. Attic, Ret: Attic, AH. Rooms in Block 1</td> <td></td> <td>6 375.75</td> </tr> <tr> <td>12. Cooling systems</td> <td>kBtu/hr</td> <td>Efficiency</td> </tr> <tr> <td>a. Central Unit</td> <td>35.9</td> <td>SEER:18.50</td> </tr> <tr> <td>13. Heating systems</td> <td>kBtu/hr</td> <td>Efficiency</td> </tr> <tr> <td>a. Electric Heat Pump</td> <td>35.9</td> <td>HSPF:7.70</td> </tr> <tr> <td>14. Hot water systems</td> <td></td> <td></td> </tr> <tr> <td>a. Electric</td> <td></td> <td>Cap. 80 gallons</td> </tr> <tr> <td></td> <td></td> <td>EF: 0.920</td> </tr> <tr> <td>b. Conservation features</td> <td></td> <td></td> </tr> <tr> <td>None</td> <td></td> <td></td> </tr> <tr> <td>15. Credits</td> <td></td> <td>Pstat</td> </tr> </table>	9. Wall Types (1575.0 sqft.)	Insulation	Area	a. Frame - Wood, Exterior	R=13.0	1371.00 ft²	b. Frame - Wood, Adjacent	R=13.0	204.00 ft²	c. N/A	R=	ft²	d. N/A	R=	ft²	10. Ceiling Types (1653.0 sqft.)	Insulation	Area	a. Under Attic (Vented)	R=30.0	1653.00 ft²	b. N/A	R=	ft²	c. N/A	R=	ft²	11. Ducts		R ft²	a. Sup. Attic, Ret: Attic, AH. Rooms in Block 1		6 375.75	12. Cooling systems	kBtu/hr	Efficiency	a. Central Unit	35.9	SEER:18.50	13. Heating systems	kBtu/hr	Efficiency	a. Electric Heat Pump	35.9	HSPF:7.70	14. Hot water systems			a. Electric		Cap. 80 gallons			EF: 0.920	b. Conservation features			None			15. Credits		Pstat
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	4																																																																																																																																	
5. Is this a worst case?	No																																																																																																																																	
6. Conditioned floor area above grade (ft²)	1503																																																																																																																																	
Conditioned floor area below grade (ft²)	0																																																																																																																																	
7. Windows (218.7 sqft.)	Description	Area																																																																																																																																
a. U-Factor	DbI, U=0.30	218.67 ft²																																																																																																																																
SHGC:	SHGC=0.50																																																																																																																																	
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:		1.500 ft.																																																																																																																																
Area Weighted Average SHGC:		0.500																																																																																																																																
8. Floor Types (1503.0 sqft.)	Insulation	Area																																																																																																																																
a. Slab-On-Grade Edge Insulation	R=5.0	1503.00 ft²																																																																																																																																
b. N/A	R=	ft²																																																																																																																																
c. N/A	R=	ft²																																																																																																																																
9. Wall Types (1575.0 sqft.)	Insulation	Area																																																																																																																																
a. Frame - Wood, Exterior	R=13.0	1371.00 ft²																																																																																																																																
b. Frame - Wood, Adjacent	R=13.0	204.00 ft²																																																																																																																																
c. N/A	R=	ft²																																																																																																																																
d. N/A	R=	ft²																																																																																																																																
10. Ceiling Types (1653.0 sqft.)	Insulation	Area																																																																																																																																
a. Under Attic (Vented)	R=30.0	1653.00 ft²																																																																																																																																
b. N/A	R=	ft²																																																																																																																																
c. N/A	R=	ft²																																																																																																																																
11. Ducts		R ft²																																																																																																																																
a. Sup. Attic, Ret: Attic, AH. Rooms in Block 1		6 375.75																																																																																																																																
12. Cooling systems	kBtu/hr	Efficiency																																																																																																																																
a. Central Unit	35.9	SEER:18.50																																																																																																																																
13. Heating systems	kBtu/hr	Efficiency																																																																																																																																
a. Electric Heat Pump	35.9	HSPF:7.70																																																																																																																																
14. Hot water systems																																																																																																																																		
a. Electric		Cap. 80 gallons																																																																																																																																
		EF: 0.920																																																																																																																																
b. Conservation features																																																																																																																																		
None																																																																																																																																		
15. Credits		Pstat																																																																																																																																

Glass/Floor Area: 0.145	Total Proposed Modified Loads: 31.14	PASS
	Total Standard Reference Loads: 39.27	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u>WKS</u> DATE: <u>4/30/14</u> 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 completion of a Florida Air Barrier and Insulation Inspection Checklist



PROJECT

Title:	Model 1503_4brdm	Bedrooms:	4	Address Type:	Street Address
Building Type:	FLProp2010	Conditioned Area:	1503	Lot #	
Owner:	N/A	Total Stories:	1	Block/SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	InnovativeHome Builders	Rotate Angle:	0	Street:	Rose Point PL
Permit Office:	Columbia County	Cross Ventilation:	No	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City , FL , 32024-
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

✓	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	2.5 %	Int Design Temp Winter	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	Block1	1503	13527

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	RoomsInBlock1	1503	13527	Yes	4	4	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulation	RoomsInBlock1	177 ft	5	1503 ft²	----	0	0	1

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor	SA Tested	Emitt	Emitt Tested	Deck Insul	Pitch (deg)
_____	1	Hlp	Composition shingles	1807 ft²	0 ft²	Medium	0.96	No	0.9	No	0	33.7

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Partial cathedral celli	Vented	303	1503 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	RoomsInBlock1	30	1653 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	E	Exterior	Frame - Wood	RoomsInBlock	13	28	2	9		253.5 ft²		0.23	0.75	0
	2	N	Exterior	Frame - Wood	RoomsInBlock	13	39	4	9		354 ft²		0.23	0.75	0
	3	W	Exterior	Frame - Wood	RoomsInBlock	13	50	10	9		457.5 ft²		0.23	0.75	0
	4	S	Exterior	Frame - Wood	RoomsInBlock	13	34		9		306 ft²		0.23	0.75	0
	5	E	Garage	Frame - Wood	RoomsInBlock	13	22	8	9		204 ft²		0.23	0.01	0

DOORS

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

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang Depth	Separation	Int Shade	Screening
✓	1	E	1	Vinyl	Low-E Double	Yes	0.3	0.5	N	60 ft²	1 ft 6 in	1 ft 0 in	HERS 2006	None
	2	N	2	Vinyl	Low-E Double	Yes	0.3	0.5	N	2.666666	1 ft 6 in	1 ft 6 in	HERS 2006	None
	3	W	3	Metal	Low-E Double	Yes	0.3	0.5	N	120 ft²	1 ft 6 in	1 ft 0 in	HERS 2006	None
	4	W	3	Metal	Low-E Double	Yes	0.3	0.5	N	20 ft²	1 ft 6 in	1 ft 0 in	HERS 2006	None
	5	S	4	Vinyl	Low-E Double	Yes	0.3	0.5	N	16 ft²	1 ft 6 in	1 ft 0 in	HERS 2006	None

GARAGE

✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
	1	468.49822 ft²	468.49822 ft²	62.667 ft	9 ft	1

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	BySpaces	Proposed SLA	0.000360	1419.26	77.9155	146.531	0.27719	6.29523

HEATING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
	1	Electric Heat Pump	None	HSPF: 7.7	35.86 kBtu/hr	1	sys#1

COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
	1	Central Unit	None	SEER: 18.53586	86 kBtu/hr	1076 cfm	0.75	1	sys#1

HOT WATER SYSTEM														
✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation					
	1	Electric	None	RoomsInBlock	0.92	80 gal	70 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 ----			---- Return ----		Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area							Heat	Cool
	1	Attic	6	375.75 f	Attic	75.15 ft²	DSE=0.88	RoomsInBlo	0.0 cfm	0.00 %	0.00	0.60	1	1

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	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	

Florida Code Compliance Checklist

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

ADDRESS: Rose Point PL
Lake City, FL, 32024-

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.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 79

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

Rose Point PL, Lake City, FL, 32024-

1 New construction or existing	New (From Plans)	9 Wall Types	Insulation	Area
2 Single family or multiple family	Single-family	a Frame - Wood, Exterior	R=13 0	1371.00 ft ²
3 Number of units, if multiple family	1	b Frame - Wood, Adjacent	R=13 0	204.00 ft ²
4 Number of Bedrooms	4	c. N/A	R=	ft ²
5 Is this a worst case?	No	d. N/A	R=	ft ²
6 Conditioned floor area (ft ²)	1503	10. Ceiling Types	Insulation	Area
7 Windows**	Description	a Under Attic (Vented)	R=30.0	1653 00 ft ²
a U-Factor:	Dbl, U=0 30	b. N/A	R=	ft ²
SHGC	SHGC=0 50	c. N/A	R=	ft ²
b U-Factor	N/A	11. Ducts		R ft ²
SHGC:		a. Sup: Attic, Ret. Attic, AH RoomsInBlock1		6 375.75
c. U-Factor:	N/A	12. Cooling systems	kBtu/hr	Efficiency
SHGC:		a. Central Unit	35.9	SEER 18 50
d U-Factor	N/A	13 Heating systems	kBtu/hr	Efficiency
SHGC:		a Electric Heat Pump	35.9	HSPF 7 70
Area Weighted Average Overhang Depth.	1 500 ft.	14 Hot water systems		Cap 80 gallons
Area Weighted Average SHGC:	0.500	a. Electric		EF 0.92
8 Floor Types	Insulation	b. Conservation features		
a Slab-On-Grade Edge Insulation	R=5 0	None		
b. N/A	R=	15. Credits		Pstat
c. N/A	R=			

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: _____



*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 EnergyGauge Rating. Contact the EnergyGauge Hotline at (321) 638-1492 or see the EnergyGauge web site at energygauge.com for information and a list of certified Raters. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section 303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Residential System Sizing Calculation

Summary

N/A
Rose Point PL
Lake City, FL 32024-

Project Title:
Model 1503_4bdrm

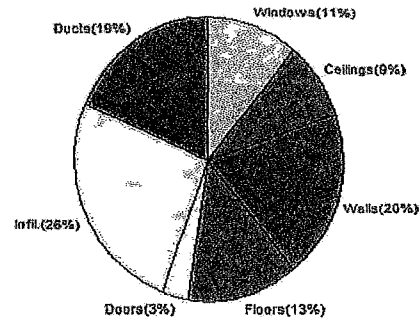
5/1/2014

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(54gr.)			
Winter design temperature(MJ8 99%)	33 F	Summer design temperature(MJ8 99%)	92 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	37 F	Summer temperature difference	17 F
Total heating load calculation	21986 Btuh	Total cooling load calculation	33616 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	163.1 35860	Sensible (SHR = 0.75)	99.0 26895
Heat Pump + Auxiliary(0.0kW)	163.1 35860	Latent	139.0 8965
		Total (Electric Heat Pump)	106.7 35860

WINTER CALCULATIONS

Winter Heating Load (for 1503 sqft)

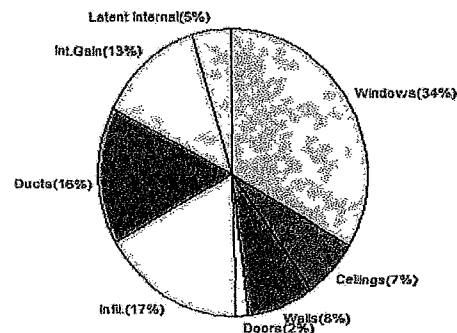
Load component		Load	
Window total	219 sqft	2427	Btuh
Wall total	1316 sqft	4323	Btuh
Door total	40 sqft	681	Btuh
Ceiling total	1653 sqft	1948	Btuh
Floor total	1503 sqft	2895	Btuh
Infiltration	139 cfm	5625	Btuh
Duct loss		4087	Btuh
Subtotal		21986	Btuh
Ventilation	0 cfm	0	Btuh
TOTAL HEAT LOSS		21986	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1503 sqft)

Load component		Load	
Window total	219 sqft	11280	Btuh
Wall total	1316 sqft	2639	Btuh
Door total	40 sqft	515	Btuh
Ceiling total	1653 sqft	2211	Btuh
Floor total		0	Btuh
Infiltration	104 cfm	1938	Btuh
Internal gain		4240	Btuh
Duct gain		4341	Btuh
Sens. Ventilation	0 cfm	0	Btuh
Blower Load		0	Btuh
Total sensible gain		27165	Btuh
Latent gain(ducts)		1045	Btuh
Latent gain(infiltration)		3806	Btuh
Latent gain(ventilation)		0	Btuh
Latent gain(internal/occupants/other)		1600	Btuh
Total latent gain		6451	Btuh
TOTAL HEAT GAIN		33616	Btuh



8th Edition

EnergyGauge® System Sizing
PREPARED BY: [Signature]
DATE: 4/30/14

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

N/A
Rose Point PL
Lake City, FL 32024-

Project Title:
Model 1503_4bdm
Building Type: User

5/1/2014

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 37.0 F (MJ8 99%)

Component Loads for Whole House								
Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	2, NFRC 0.50	Vinyl	0.30	E	60.0		11.1	666 Btuh
2	2, NFRC 0.50	Vinyl	0.30	N	2.7		11.1	30 Btuh
3	2, NFRC 0.50	Metal	0.30	W	120.0		11.1	1332 Btuh
4	2, NFRC 0.50	Metal	0.30	W	20.0		11.1	222 Btuh
5	2, NFRC 0.50	Vinyl	0.30	S	16.0		11.1	178 Btuh
	Window Total					218.7(sqft)		2427 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	174		3.28	570 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	351		3.28	1154 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	318		3.28	1043 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	290		3.28	952 Btuh
5	Frame - Wood	- Adj	(0.089)	13.0/0.0	184		3.28	604 Btuh
	Wall Total					1316(sqft)		4323 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Exterior, n		(0.460)		20		17.0	340 Btuh
2	Insulated - Garage, n		(0.460)		20		17.0	340 Btuh
	Door Total					40(sqft)		681Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM=	Load
1	Vented Attic/L/Shing		(0.032)	30.0/0.0	1653		1.2	1948 Btuh
	Ceiling Total					1653(sqft)		1948Btuh
Floors	Type		Ueff.	R-Value	Size	X	HTM=	Load
1	Slab On Grade		(0.442)	5.0	177.0 ft(perim.)		16.4	2895 Btuh
	Floor Total					1503 sqft		2895 Btuh
	Envelope Subtotal:							12273 Btuh
Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=		Load
	Natural		0.62	13527	1.00	138.9		5625 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att)					(DLM of 0.228)		4087 Btuh
All Zones	Sensible Subtotal All Zones							21986 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

N/A
Rose Point PL
Lake City, FL 32024-

Project Title:
Model 1503_4bdm
Building Type: User

5/1/2014

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	21986 Btuh
	Ventilation Sensible Heat Loss	0 Btuh
	Total Heat Loss	21986 Btuh

EQUIPMENT

1. Electric Heat Pump	#	35860 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

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

N/A
Rose Point PL
Lake City, FL 32024-

Project Title:
Model 1503_4bdm

5/1/2014

Reference City: Gainesville, FL

Temperature Difference: 17.0F(MJ8 99%)

Humidity difference: 54gr.

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	0.50, 0.30	No	No	E		1.5ft.	1.0ft.	60.0	2.9	57.1	16	53	3087	Btuh			
2	2 NFRC	0.50, 0.30	No	No	N		1.5ft.	1.5ft.	2.7	0.0	2.7	16	16	42	Btuh			
3	2 NFRC	0.50, 0.30	No	No	W		1.5ft.	1.0ft.	120.0	5.9	114.1	16	53	6175	Btuh			
4	2 NFRC	0.50, 0.30	No	No	W		1.5ft.	1.0ft.	20.0	0.7	19.3	16	53	1038	Btuh			
5	2 NFRC	0.50, 0.30	No	No	S		1.5ft.	1.0ft.	16.0	16.0	0.0	16	20	250	Btuh			
	Excursion													687	Btuh			
	Window Total								219 (sqft)					11280 Btuh				
Walls	Type						U-Value		R-Value		Area(sqft)		HTM		Load			
									Cav/Sheath									
1	Frame - Wood - Ext						0.09		13.0/0.0		173.5		2.1		362 Btuh			
2	Frame - Wood - Ext						0.09		13.0/0.0		351.3		2.1		733 Btuh			
3	Frame - Wood - Ext						0.09		13.0/0.0		317.5		2.1		662 Btuh			
4	Frame - Wood - Ext						0.09		13.0/0.0		290.0		2.1		605 Btuh			
5	Frame - Wood - Adj						0.09		13.0/0.0		184.0		1.5		278 Btuh			
	Wall Total										1316 (sqft)				2639 Btuh			
Doors	Type								Area (sqft)		HTM		Load					
1	Insulated - Exterior								20.0		12.9		258 Btuh					
2	Insulated - Garage								20.0		12.9		258 Btuh					
	Door Total								40 (sqft)				515 Btuh					
Ceilings	Type/Color/Surface						U-Value		R-Value		Area(sqft)		HTM		Load			
1	Vented AtticLight/Shingle						0.032		30.0/0.0		1653.0		1.34		2211 Btuh			
	Ceiling Total										1653 (sqft)				2211 Btuh			
Floors	Type								R-Value		Size		HTM		Load			
1	Slab On Grade								5.0		1503 (ft-perimeter)		0.0		0 Btuh			
	Floor Total										1503.0 (sqft)				0 Btuh			
	Envelope Subtotal:														16645 Btuh			
Infiltration	Type						Average ACH		Volume(cuft)		Wall Ratio		CFM=		Load			
	Natural						0.46		13527		1		104.2		1938 Btuh			
Internal gain							Occupants		Btuh/occupant				Appliance		Load			
							8		X 230		+		2400		4240 Btuh			
	Sensible Envelope Load:														22824 Btuh			
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic)														(DGM of 0.190)		4341 Btuh	
	Sensible Load All Zones														27165 Btuh			

Manual J Summer Calculations

Residential Load - Component Details (continued)

N/A
Rose Point PL
Lake City, FL 32024-

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Model 1503_4bdm

5/1/2014

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	22824 Btuh
	Sensible Duct Load	4341 Btuh
	Total Sensible Zone Loads	27165 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	27165 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	3806 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	1045 Btuh
	Latent occupant gain (8.0 people @ 200 Btuh per person)	1600 Btuh
	Latent other gain	0 Btuh
	Latent total gain	6451 Btuh
	TOTAL GAIN	33616 Btuh

EQUIPMENT

1. Central Unit	#	35860 Btuh
-----------------	---	------------

*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