

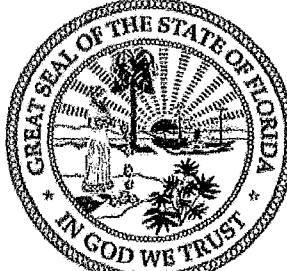
FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

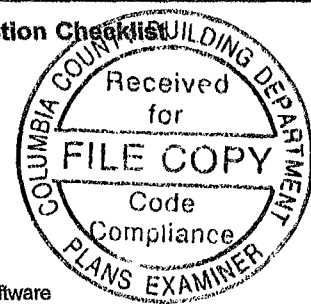
Project Name: Model 1403 Street: Rose Point PL City, State, Zip: Lake City, FL, 32024 Owner: N/A Design Location: FL, Gainesville	Builder Name: Innovative Home Builders Permit Office: Columbia County Permit Number: Jurisdiction:
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<table style="width:100%;"> <tr> <td>1. New construction or existing</td> <td>New (From Plans)</td> </tr> <tr> <td>2. Single family or multiple family</td> <td>Single-family</td> </tr> <tr> <td>3. Number of units, if multiple family</td> <td>1</td> </tr> <tr> <td>4. Number of Bedrooms</td> <td>3</td> </tr> <tr> <td>5. Is this a worst case?</td> <td>No</td> </tr> <tr> <td>6. Conditioned floor area above grade (ft²)</td> <td>1403</td> </tr> <tr> <td> Conditioned floor area below grade (ft²)</td> <td>0</td> </tr> <tr> <td>7. Windows (193.7 sqft.)</td> <td>Description</td> <td>Area</td> </tr> <tr> <td> a. U-Factor:</td> <td>DbI, U=0.30</td> <td>193.67 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> Area Weighted Average Overhang Depth:</td> <td>1.413 ft.</td> <td></td> </tr> <tr> <td> Area Weighted Average SHGC:</td> <td>0.500</td> <td></td> </tr> <tr> <td>8. Floor Types (1403.0 sqft.)</td> <td>Insulation</td> <td>Area</td> </tr> <tr> <td> a. Slab-On-Grade Edge Insulation</td> <td>R=5 0</td> <td>1403.00 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	3	5. Is this a worst case?	No	6. Conditioned floor area above grade (ft ²)	1403	Conditioned floor area below grade (ft ²)	0	7. Windows (193.7 sqft.)	Description	Area	a. U-Factor:	DbI, U=0.30	193.67 ft ²	SHGC:	SHGC=0.50		b. U-Factor:	N/A	ft ²	SHGC:			c. U-Factor:	N/A	ft ²	SHGC:			d. U-Factor:	N/A	ft ²	SHGC:			Area Weighted Average Overhang Depth:	1.413 ft.		Area Weighted Average SHGC:	0.500		8. Floor Types (1403.0 sqft.)	Insulation	Area	a. Slab-On-Grade Edge Insulation	R=5 0	1403.00 ft ²	b. N/A	R=	ft ²	c. N/A	R=	ft ²	<table style="width:100%;"> <tr> <td>9. Wall Types (1464.0 sqft.)</td> <td>Insulation</td> <td>Area</td> </tr> <tr> <td> a. Frame - Wood, Exterior</td> <td>R=13.0</td> <td>1222.50 ft²</td> </tr> <tr> <td> b. Frame - Wood, Adjacent</td> <td>R=13.0</td> <td>241.50 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 (1543.0 sqft.)</td> <td>Insulation</td> <td>Area</td> </tr> <tr> <td> a. Under Attic (Vented)</td> <td>R=30.0</td> <td>1543.00 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>R</td> <td>ft²</td> </tr> <tr> <td> a. Sup: Attic, Ret: Attic, AH. Garage</td> <td>6</td> <td>350.75</td> </tr> <tr> <td>12. Cooling systems</td> <td>kBtu/hr</td> <td>Efficiency</td> </tr> <tr> <td> a. Central Unit</td> <td>32.7</td> <td>SEER:18.00</td> </tr> <tr> <td>13. Heating systems</td> <td>kBtu/hr</td> <td>Efficiency</td> </tr> <tr> <td> a. Electric Heat Pump</td> <td>32.7</td> <td>HSPF:7.70</td> </tr> <tr> <td>14. Hot water systems</td> <td></td> <td>Cap: 80 gallons</td> </tr> <tr> <td> a. Electric</td> <td></td> <td>EF: 0.920</td> </tr> <tr> <td> b. Conservation features</td> <td></td> <td>None</td> </tr> <tr> <td>15. Credits</td> <td></td> <td>Pstat</td> </tr> </table>	9. Wall Types (1464.0 sqft.)	Insulation	Area	a. Frame - Wood, Exterior	R=13.0	1222.50 ft ²	b. Frame - Wood, Adjacent	R=13.0	241.50 ft ²	c. N/A	R=	ft ²	d. N/A	R=	ft ²	10. Ceiling Types (1543.0 sqft.)	Insulation	Area	a. Under Attic (Vented)	R=30.0	1543.00 ft ²	b. N/A	R=	ft ²	c. N/A	R=	ft ²	11. Ducts	R	ft ²	a. Sup: Attic, Ret: Attic, AH. Garage	6	350.75	12. Cooling systems	kBtu/hr	Efficiency	a. Central Unit	32.7	SEER:18.00	13. Heating systems	kBtu/hr	Efficiency	a. Electric Heat Pump	32.7	HSPF:7.70	14. Hot water systems		Cap: 80 gallons	a. Electric		EF: 0.920	b. Conservation features		None	15. Credits		Pstat
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Glass/Floor Area: 0.138	Total Proposed Modified Loads: 27.91	PASS
	Total Standard Reference Loads: 34.81	

<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: <u>NA</u></p> <p>DATE: <u>4/30/14</u></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 completion of a Florida Air Barrier and Insulation Inspection Checklist



PROJECT

Title:	Model 1403	Bedrooms:	3	Address Type:	Street Address
Building Type:	FLProp2010	Conditioned Area:	1403	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 %	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	2	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1403	12627

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	RoomsInBlock1	1403	12627	Yes	3	3	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	R-Value	Area	Tile	Wood	Carpet	
_____	1	Slab-On-Grade Edge Insulation	RoomsInBlock1	177 3 ft	5	1403 ft²	_____	0	0	1

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor	SA Tested	Emitt Tested	Emitt Tested	Deck Insul	Pitch (deg)
_____	1	Gable or shed	Compositionshingles	1686 ft²	468 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	1403 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	RoomsInBlock1	30	1543 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	8	9		258 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	49	4	9		444 ft²		0.23	0.75	0
✓	4	S	Exterior	Frame - Wood	RoomsInBlock	13	18	6	9		166.5 ft²		0.23	0.75	0
✓	5	E	Garage	Frame - Wood	RoomsInBlock	13	20	10	9		187.5 ft²		0.23	0.01	0
✓	6	S	Garage	Frame - Wood	RoomsInBlock	13	6		9		54 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	Panels	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	45 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
✓	2	N	2	Vinyl	Low-E Double	Yes	0.3	0.5	N	2.666666	1 ft 0 in	6 ft 0 in	HERS 2006	None
✓	3	N	2	Vinyl	Low-E Double	Yes	0.3	0.5	N	15 ft²	1 ft 0 in	3 ft 0 in	HERS 2006	None
✓	4	W	3	Vinyl	Low-E Double	Yes	0.3	0.5	N	75 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
✓	5	W	3	Vinyl	Low-E Double	Yes	0.3	0.5	N	40 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
✓	6	S	4	Vinyl	Low-E Double	Yes	0.3	0.5	N	16 ft²	1 ft 0 in	5 ft 0 in	HERS 2006	None

GARAGE						
✓	#	Floor Area	Celling Area	Exposed Wall Perimeter	Avg Wall Height	Exposed Wall Insulation
✓	1	510.4085 ft²	510.4085 ft²	61.667 ft	9 ft	1

INFILTRATION								
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	BySpaces	Proposed SLA	0.000360	1324.83	72.7315	136.782	0.27719	6.29523

HEATING SYSTEM							
✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
✓	1	Electric Heat Pump	None	HSPF: 7.7	32.7 kBtu/hr	1	sys#1

COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
✓	1	Central Unit	None	SEER: 18	32.7 kBtu/hr	981 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	60 gal	120 deg	None

SOLAR HOT WATER SYSTEM

✓	FSEC Cert #	Company Name	System Model#	Collector Model#	Collector Area	Storage Volume	FEF
✓	None	None			ft ²		

DUCTS

✓	#	--- Supply --- Location	R-Value	Area	--- Return --- Location	Area	Leakage Type	Air Handler CFM 25	Percent Leakage QN	RLF	Heat	HVAC # Cool
✓	1	Attic	6	350.75 f	Attic	70.15 ft ²	DSE=0.88	Garage 0 0 cfm	0.00 %	0.00	0.60	1 1

TEMPERATURES

Programable Thermostat: Y		Ceiling Fans											
Cooling	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec	
Heating	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec	
Venting	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" 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 78 PM 80	78 80	78 78	78 78	78 78	78 78	78 78	78 78	80 78	80 78	80 78	80 78	
Cooling (WEH)	AM 78 PM 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	
Heating (WD)	AM 66 PM 68	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 66	68 66	
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Florida Code Compliance Checklist
 Florida Department of Business and Professional Regulations
 Residential Whole Building Performance Method

ADDRESS: Rose Point PL

PERMIT #:

Lake City, FL, 32024-

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* = 80

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

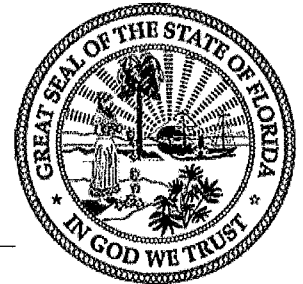
Rose Point PL, Lake City, FL, 32024-

<p>1 New construction or existing 2 Single family or multiple family 3 Number of units, if multiple family 4 Number of Bedrooms 5 Is this a worst case? 6 Conditioned floor area (ft²)</p>	<p>New (From Plans) Single-family 1 3 No 1403</p>	<p>9. Wall Types a. Frame - Wood, Exterior b. Frame - Wood, Adjacent c. N/A d. N/A</p>	<p>Insulation R=13 0 R=13 0 R= R=</p>	<p>Area 1222.50 ft² 241.50 ft² ft² ft²</p>		
<p>7. Windows** a. U-Factor SHGC b. U-Factor: SHGC c. U-Factor SHGC d. U-Factor SHGC Area Weighted Average Overhang Depth Area Weighted Average SHGC:</p>	<p>Description Dbl, U=0.30 SHGC=0.50 N/A N/A N/A 1.413 ft. 0.500</p>	<p>Area 193.67 ft² ft² ft² ft²</p>	<p>10. Ceiling Types a. Under Attic (Vented) b. N/A c. N/A</p>	<p>Insulation R=30 0 R= R=</p>	<p>Area 1543.00 ft² ft² ft²</p>	
<p>8 Floor Types a. Slab-On-Grade Edge Insulation b. N/A c. N/A</p>	<p>Insulation R=5 0 R= R=</p>	<p>Area 1403.00 ft² ft² ft²</p>	<p>11 Ducts a. Sup Attic, Ret Attic, AH. Garage</p>	<p>R ft² 6 350.75</p>	<p>12 Cooling systems a. Central Unit</p>	<p>kBtu/hr Efficiency 32.7 SEER.18.00</p>
			<p>13 Heating systems a. Electric Heat Pump</p>	<p>kBtu/hr Efficiency 32.7 HSPF.7.70</p>		
			<p>14 Hot water systems a. Electric b. Conservation features None</p>	<p>Cap 80 gallons EF 0.92</p>		
			<p>15 Credits</p>		<p>Pstat</p>	

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.

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

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

Project Title:
 Model 1403
 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	45.0		11.1 500 Btuh	
2	2, NFRC 0.50	Vinyl	0.30	N	2.7		11.1 30 Btuh	
3	2, NFRC 0.50	Vinyl	0.30	N	15.0		11.1 166 Btuh	
4	2, NFRC 0.50	Vinyl	0.30	W	75.0		11.1 832 Btuh	
5	2, NFRC 0.50	Vinyl	0.30	W	40.0		11.1 444 Btuh	
6	2, NFRC 0.50	Vinyl	0.30	S	16.0		11.1 178 Btuh	
	Window Total					193.7(sqft)		2150 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM= Load	
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	193		3.28 634 Btuh	
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	336		3.28 1105 Btuh	
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	329		3.28 1080 Btuh	
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	151		3.28 494 Btuh	
5	Frame - Wood	- Adj	(0.089)	13.0/0.0	168		3.28 550 Btuh	
6	Frame - Wood	- Adj	(0.089)	13.0/0.0	54		3.28 177 Btuh	
	Wall Total					1230(sqft)		4040 Btuh
Doors	Type	Storm	Ueff.	R-Value	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	1543		1.2 1818 Btuh		
	Ceiling Total					1543(sqft)		1818Btuh
Floors	Type	Ueff.	R-Value	Size	X	HTM= Load		
1	Slab On Grade	(0.442)	5.0	177.3 ft(perim.)		16.4 2900 Btuh		
	Floor Total					1403 sqft		2900 Btuh
Envelope Subtotal:							11589 Btuh	
Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM= Load		
	Natural		0.62	12627	1.00	129.6 5251 Btuh		
Duct load	Average sealed, R6.0, Supply(Att), Return(Att)					(DLM of 0.227)	3829 Btuh	
All Zones	Sensible Subtotal All Zones						20669 Btuh	

Manual J Winter Calculations

Residential Load - Component Details (continued)

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

Project Title.
 Model 1403
 Building Type: User

5/1/2014

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sensible Heat Loss Total Heat Loss	20669 Btuh 0 Btuh 20669 Btuh
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EQUIPMENT

1. Electric Heat Pump	#	32700 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

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

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

Project Title:
 Model 1403

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.	1.5ft.	45.0	0.0	45.0	16	53	2399 Btuh	
2	2 NFRC	0.50, 0.30	No	No	N	1.0ft.	6.0ft.	2.7	0.0	2.7	16	16	42 Btuh	
3	2 NFRC	0.50, 0.30	No	No	N	1.0ft.	3.0ft.	15.0	0.0	15.0	16	16	234 Btuh	
4	2 NFRC	0.50, 0.30	No	No	W	1.5ft.	1.5ft.	75.0	0.0	75.0	16	53	3998 Btuh	
5	2 NFRC	0.50, 0.30	No	No	W	1.5ft.	1.5ft.	40.0	0.0	40.0	16	53	2132 Btuh	
6	2 NFRC	0.50, 0.30	No	No	S	1.0ft.	5.0ft.	16.0	2.7	13.3	16	20	302 Btuh	
Excursion													374 Btuh	
Window Total								194 (sqft)					9480 Btuh	
Walls	Type	U-Value	R-Value	Area(sqft)		HTM		Load						
1	Frame - Wood - Ext	0.09	13.0/0.0	193.0		2.1		403 Btuh						
2	Frame - Wood - Ext	0.09	13.0/0.0	336.3		2.1		702 Btuh						
3	Frame - Wood - Ext	0.09	13.0/0.0	329.0		2.1		686 Btuh						
4	Frame - Wood - Ext	0.09	13.0/0.0	150.5		2.1		314 Btuh						
5	Frame - Wood - Adj	0.09	13.0/0.0	167.5		1.5		253 Btuh						
6	Frame - Wood - Adj	0.09	13.0/0.0	54.0		1.5		81 Btuh						
Wall Total				1230 (sqft)				2438 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 Attic/Light/Shingle	0.032	30.0/0.0	1543.0	1.34		2064 Btuh							
Ceiling Total				1543 (sqft)		2064 Btuh								
Floors	Type	R-Value		Size	HTM		Load							
1	Slab On Grade	5.0		1403 (ft-perimeter)	0.0		0 Btuh							
Floor Total				1403.0 (sqft)		0 Btuh								
Envelope Subtotal:													14497 Btuh	
Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=		Load							
	Natural	0.46	12627	1	97.2		1810 Btuh							
Internal gain	Occupants	Btuh/occupant		Appliance		Load								
	6	X 230		+ 2400		3780 Btuh								
Sensible Envelope Load:													20087 Btuh	
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic)										(DGM of 0.195)	3909 Btuh		
Sensible Load All Zones													23996 Btuh	

Manual J Summer Calculations

Residential Load - Component Details (continued)

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

Project Title:
Model 1403

Climate: FL_GAINESVILLE_REGIONAL_A

5/1/2014

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	20087 Btuh
	Sensible Duct Load	3909 Btuh
	Total Sensible Zone Loads	23996 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	23996 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	3553 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	951 Btuh
	Latent occupant gain (6.0 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	5704 Btuh
	TOTAL GAIN	29700 Btuh

EQUIPMENT

1. Central Unit	#	32700 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(N), 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(1/2))
 (Ornt - compass orientation)



Version 8