FORM 600A-2004 EnergyGauge® 4.21

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

Project Name:	**Stagg Residence**	Builder:	STAGG
Address:	**291 SW Equestrian Way**	Permitting Office:	**Columbia**
City, State:	**Lake City, FL 32024-**	Permit Number:	26518
Owner:	**Daniel & Michelle Stagg**	Jurisdiction Number:	**221000**
Climate Zone:	**North**		

1.	New construction or existing	New	
2.	Single family or multi-family	Single family	
3.	Number of units, if multi-family	1	
4.	Number of Bedrooms	3	
5.	Is this a worst case?	No	
6.	Conditioned floor area (ft²)	2170 ft²	
7.	Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)		
a.	U-factor: (or Single or Double DEFAULT)	7a. Description (Dble Default) Area 174.0 ft²	
b.	SHGC: (or Clear or Tint DEFAULT)	7b. (Clear) 174.0 ft²	
8.	Floor types		
a.	Slab-On-Grade Edge Insulation	R=1.0, 214.0(p) ft	
b.	N/A		
c.	N/A		
9.	Wall types		
a.	Concrete, Ext Insul, Exterior	R=15.0, 1926.0 ft²	
b.	N/A		
c.	N/A		
d.	N/A		
e.	N/A		
10.	Ceiling types		
a.	Under Attic	R=30.0, 2170.0 ft²	
b.	N/A		
c.	N/A		
11.	Ducts		
a.	Sup: Con. Ret: Con. AH: Interior	Sup. R=6.0, 65.0 ft	
b.	N/A		
12.	Cooling systems		
a.	Central Unit	Cap: 36.0 kBtu/hr SEER: 14.00	
b.	N/A		
c.	N/A		
13.	Heating systems		
a.	Electric Heat Pump	Cap: 36.0 kBtu/hr HSPF: 8.70	
b.	N/A		
c.	N/A		
14.	Hot water systems		
a.	Electric Resistance	Cap: 50.0 gallons EF: 0.95	
b.	N/A		
c.	Conservation credits (HR-Heat recovery, Solar DHP-Dedicated heat pump)		
15.	HVAC credits (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating)	CF,	

Glass/Floor Area: 0.08

Total as-built points: 19434

Total base points: 31640

PASS

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

PREPARED BY: _____

DATE: 12/4/07

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

OWNER/AGENT: Michelle Stagg

DATE: 12-6-07

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: _____

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **291 SW Equestrian Way, Lake City, FL, 32024-** PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BSPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	SPM X	SOF	= Points	
.18	2170.0	20.04	7827.6	Double, Clear	N	1.3	8.0	10.0	19.20	0.98	187.3	
				Double, Clear	N	1.3	7.0	15.0	19.20	0.97	278.2	
				Double, Clear	E	10.4	7.0	16.0	42.06	0.43	292.3	
				Double, Clear	E	10.3	7.0	30.0	42.06	0.44	550.0	
				Double, Clear	W	1.3	7.0	15.0	38.52	0.96	552.4	
				Double, Clear	W	9.3	7.0	60.0	38.52	0.47	1082.1	
				Double, Clear	S	1.4	4.0	12.0	35.87	0.76	325.7	
				Double, Clear	S	1.3	6.0	16.0	35.87	0.89	508.4	
				As-Built Total:				**174.0**			**3776.5**	

WALL TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM	= Points
Exterior	1926.0	1.70	3274.2	Concrete, Ext Insul, Exterior	15.0	1926.0	0.00	0.0
Adjacent	0.0	0.00	0.0					
Base Total:	**1926.0**		**3274.2**	**As-Built Total:**		**1926.0**		**0.0**

DOOR TYPES	Area X	BSPM	= Points	Type	Area X	SPM	= Points
Exterior	78.0	4.10	319.8	Exterior Insulated	60.0	4.10	246.0
Adjacent	0.0	0.00	0.0	Exterior Insulated	18.0	4.10	73.8
Base Total:	**78.0**		**319.8**	**As-Built Total:**	**78.0**		**319.8**

CEILING TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM X SCM	= Points
Under Attic	2170.0	1.73	3754.1	Under Attic	30.0	2170.0	1.73 X 1.00	3754.1
Base Total:	**2170.0**		**3754.1**	**As-Built Total:**		**2170.0**		**3754.1**

FLOOR TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM	= Points
Slab	214.0(p)	-37.0	-7918.0	Slab-On-Grade Edge Insulation	1.0	214.0(p	-39.87	-8531.5
Raised	0.0	0.00	0.0					
Base Total:			**-7918.0**	**As-Built Total:**		**214.0**		**-8531.5**

INFILTRATION	Area X	BSPM	= Points	Area X	SPM	= Points
	2170.0	10.21	22155.7	2170.0	10.21	22155.7

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **291 SW Equestrian Way, Lake City, FL, 32024-** PERMIT #:

BASE			AS-BUILT					
Summer Base Points: 29413.4			**Summer As-Built Points:**					**21474.6**
Total Summer Points	X System Multiplier	= Cooling Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Cooling Points
			(sys 1: Central Unit 36000 btuh ,SEER/EFF(14.0) Ducts:Con(S),Con(R),Int(AH),R6.0(INS)					
			21475	1.00	(1.00 x 1.147 x 0.91)	0.244	0.950	5191.1
29413.4	**0.4266**	**12547.8**	**21474.6**	**1.00**	**1.044**	**0.244**	**0.950**	**5191.1**

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **291 SW Equestrian Way, Lake City, FL, 32024-** PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BWPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	WPM X	WOF	= Points	
.18	2170.0	12.74	4976.2	Double, Clear	N	1.3	8.0	10.0	24.58	1.00	245.9	
				Double, Clear	N	1.3	7.0	15.0	24.58	1.00	369.0	
				Double, Clear	E	10.4	7.0	16.0	18.79	1.39	417.3	
				Double, Clear	E	10.3	7.0	30.0	18.79	1.39	781.4	
				Double, Clear	W	1.3	7.0	15.0	20.73	1.01	314.6	
				Double, Clear	W	9.3	7.0	60.0	20.73	1.20	1486.5	
				Double, Clear	S	1.4	4.0	12.0	13.30	1.30	206.9	
				Double, Clear	S	1.3	6.0	16.0	13.30	1.08	230.5	
				As-Built Total:				**174.0**			**4052.1**	
WALL TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM =		Points	
Exterior	1926.0	3.70	7126.2	Concrete, Ext Insul, Exterior			15.0	1926.0	2.20		4237.2	
Adjacent	0.0	0.00	0.0									
Base Total:	**1926.0**		**7126.2**	**As-Built Total:**				**1926.0**			**4237.2**	
DOOR TYPES	Area X	BWPM =	Points	Type				Area X	WPM =		Points	
Exterior	78.0	8.40	655.2	Exterior Insulated				60.0	8.40		504.0	
Adjacent	0.0	0.00	0.0	Exterior Insulated				18.0	8.40		151.2	
Base Total:	**78.0**		**655.2**	**As-Built Total:**				**78.0**			**655.2**	
CEILING TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM X WCM =		Points	
Under Attic	2170.0	2.05	4448.5	Under Attic			30.0	2170.0	2.05 X 1.00		4448.5	
Base Total:	**2170.0**		**4448.5**	**As-Built Total:**				**2170.0**			**4448.5**	
FLOOR TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM =		Points	
Slab	214.0(p)	8.9	1904.6	Slab-On-Grade Edge Insulation			1.0	214.0(p	15.63		3345.5	
Raised	0.0	0.00	0.0									
Base Total:			**1904.6**	**As-Built Total:**				**214.0**			**3345.5**	
INFILTRATION	Area X	BWPM =	Points					Area X	WPM =		Points	
	2170.0	-0.59	-1280.3					2170.0	-0.59		-1280.3	

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **291 SW Equestrian Way, Lake City, FL, 32024-** PERMIT #:

BASE			AS-BUILT					
Winter Base Points:		**17830.4**	**Winter As-Built Points:**					**15458.2**
Total Winter Points	X System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points
			(sys 1: Electric Heat Pump 36000 btuh ,EFF(8.7) Ducts:Con(S),Con(R),Int(AH),R6.0					
			15458.2	1.000	(1.000 x 1.169 x 0.93)	0.392	1.000	6587.1
17830.4	**0.6274**	**11186.8**	**15458.2**	**1.00**	**1.087**	**0.392**	**1.000**	**6587.1**

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: **291 SW Equestrian Way, Lake City, FL, 32024-** PERMIT #:

BASE				AS-BUILT							
WATER HEATING											
Number of Bedrooms	X	Multiplier	= Total	Tank Volume	EF	Number of Bedrooms	X	Tank Ratio	X Multiplier	X Credit Multiplier	= Total
3		2635.00	7905.0	50.0	0.95	3		1.00	2551.79	1.00	7655.4
				As-Built Total:							**7655.4**

CODE COMPLIANCE STATUS

BASE				AS-BUILT			
Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points	Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points
12548	**11187**	**7905**	**31640**	**5191**	**6587**	**7655**	**19434**

PASS

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: **291 SW Equestrian Way, Lake City, FL, 32024-** PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum:.3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	606.1.ABC.1.2.3	Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked cir breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 90.4

The higher the score, the more efficient the home.

Daniel & Michelle Stagg, 291 SW Equestrian Way, Lake City, FL, 32024-

1.	New construction or existing	New			
2.	Single family or multi-family	Single family			
3.	Number of units, if multi-family	1			
4.	Number of Bedrooms	3			
5.	Is this a worst case?	No			
6.	Conditioned floor area (ft²)	2170 ft²			
7.	Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)				
	a. U-factor:	Description	Area		
	(or Single or Double DEFAULT)	7a. (Dble Default)	174.0 ft²		
	b. SHGC:				
	(or Clear or Tint DEFAULT)	7b. (Clear)	174.0 ft²		
8.	Floor types				
	a. Slab-On-Grade Edge Insulation	R=1.0, 214.0(p) ft			
	b. N/A				
	c. N/A				
9.	Wall types				
	a. Concrete, Ext Insul, Exterior	R=15.0, 1926.0 ft²			
	b. N/A				
	c. N/A				
	d. N/A				
	e. N/A				
10.	Ceiling types				
	a. Under Attic	R=30.0, 2170.0 ft²			
	b. N/A				
	c. N/A				
11.	Ducts				
	a. Sup: Con. Ret: Con. AH: Interior	Sup. R=6.0, 65.0 ft			
	b. N/A				
12.	Cooling systems				
	a. Central Unit			Cap: 36.0 kBtu/hr	
				SEER: 14.00	
	b. N/A				
	c. N/A				
13.	Heating systems				
	a. Electric Heat Pump			Cap: 36.0 kBtu/hr	
				HSPF: 8.70	
	b. N/A				
	c. N/A				
14.	Hot water systems				
	a. Electric Resistance			Cap: 50.0 gallons	
				EF: 0.95	
	b. N/A				
	c. Conservation credits (HR-Heat recovery, Solar DHP-Dedicated heat pump)				
15.	HVAC credits (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating)			CF,	

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: Michelle Stagg Date: 12-10-07

Address of New Home: 291 SW Equestrian Way City/FL Zip: Lake City, FL 32024

NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

BUILDING INPUT SUMMARY REPORT

PROJECT

Title:	Stagg Residence	**Family Type:**	Single	**Address Type:**	Street Address
Owner:	Daniel & Michelle Stagg	**New/Existing:**	New	**Lot #:**	N/A
# of Units:	1	**Bedrooms:**	3	**Subdivision:**	N/A
Builder Name:	(blank)	**Conditioned Area:**	2170	**Platbook:**	N/A
Climate:	North	**Total Stories:**	1	**Street:**	291 SW Equestrian Way
Permit Office:	Columbia	**Worst Case:**	No	**County:**	Columbia
Jurisdiction #:	(blank)	**Rotate Angle:**	(blank)	**City, St, Zip:**	Lake City, FL, 32024-

FLOORS

#	Floor Type	R-Val	Area/Perimeter	Units
1	Slab-On-Grade Edge Insulation	1.0	214.0(p) ft	1

DOORS

#	Door Type	Orientation	Area	Units
1	Insulated	Exterior	20.0 ft²	3
2	Insulated	Exterior	18.0 ft²	1

CEILINGS

#	Ceiling Type	R-Val	Area	Base Area	Units
1	Under Attic	30.0	2170.0 ft²	2170.0 ft²	1

Credit Multipliers: None

COOLING

#	System Type	Efficiency	Capacity
1	Central Unit	SEER: 14.00	36.0 kBtu/hr

Credit Multipliers: Ceil Fn

WALLS

#	Wall Type	Location	R-Val	Area	Units
1	Concrete Block - Ext Insul	Exterior	15.0	1926.0 ft²	1

HEATING

#	System Type	Efficiency	Capacity
1	Electric Heat Pump	COP: 8.70	36.0 kBtu/hr

Credit Multipliers: None

WINDOWS

#	Panes	Tint	Ornt	Area	OH Length	OH Hght	Units
1	Double	Clear	N	10.0 ft²	1.3 ft	8.0 ft	1
2	Double	Clear	N	15.0 ft²	1.3 ft	7.0 ft	1
3	Double	Clear	E	16.0 ft²	10.4 ft	7.0 ft	1
4	Double	Clear	E	15.0 ft²	10.3 ft	7.0 ft	2
5	Double	Clear	W	15.0 ft²	1.3 ft	7.0 ft	1
6	Double	Clear	W	15.0 ft²	9.3 ft	7.0 ft	4
7	Double	Clear	S	6.0 ft²	1.4 ft	4.0 ft	2
8	Double	Clear	S	16.0 ft²	1.3 ft	6.0 ft	1

DUCTS

#	Supply Location	Return Location	Air Handler Location	Supply R-Val	Supply Length
1	Cond.	Cond.	Interior	6.0	65.0 ft

Credit Multipliers: None

WATER

#	System Type	EF	Cap.	Conservation Type	Con. EF
1	Electric Resistance	0.95	50.0	None	0.00

REFR.

#	Use Default?	Annual Operating Cost	Electric Rate
1	Yes	N/A	N/A

Residential System Sizing Calculation

Summary

Daniel & Michelle Stagg
291 SW Equestrian Way
Lake City, FL 32024-

Project Title:
Stagg Residence

Code Only
Professional Version
Climate: North

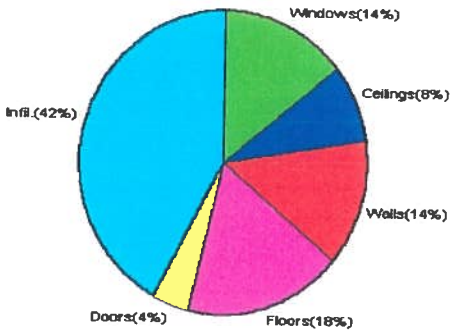
12/3/2007

Location for weather data: Gainesville - Defaults: Latitude(29) Temp Range(M)					
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)					
Winter design temperature	31	F	Summer design temperature	93	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	39	F	Summer temperature difference	18	F
Total heating load calculation	**34073**	**Btuh**	**Total cooling load calculation**	**30195**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	123.3	42000	Sensible (SHR = 0.75)	175.8	31500
Heat Pump + Auxiliary(0.0kW)	123.3	42000	Latent	85.5	10500
			Total (Electric Heat Pump)	139.1	42000

WINTER CALCULATIONS

Winter Heating Load (for 2170 sqft)

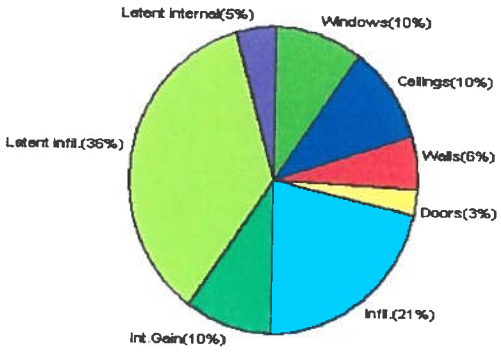
Load component			Load	
Window total	174	sqft	4924	Btuh
Wall total	1926	sqft	4622	Btuh
Door total	78	sqft	1430	Btuh
Ceiling total	2170	sqft	2821	Btuh
Floor total	214	ft	6099	Btuh
Infiltration	330	cfm	14177	Btuh
Subtotal			**34073**	**Btuh**
Duct loss			0	Btuh
TOTAL HEAT LOSS			**34073**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2170 sqft)

Load component			Load	
Window total	174	sqft	3075	Btuh
Wall total	1926	sqft	1753	Btuh
Door total	78	sqft	791	Btuh
Ceiling total	2170	sqft	3081	Btuh
Floor total			0	Btuh
Infiltration	314	cfm	6220	Btuh
Internal gain			3000	Btuh
Subtotal(sensible)			**17920**	**Btuh**
Duct gain			0	Btuh
Total sensible gain			**17920**	**Btuh**
Latent gain(infiltration)			10895	Btuh
Latent gain(internal)			1380	Btuh
Total latent gain			**12275**	**Btuh**
TOTAL HEAT GAIN			**30195**	**Btuh**



EnergyGauge® System Sizing based on ACCA Manual J.

PREPARED BY: _____

DATE: _____

System Sizing Calculations - Winter

Residential Load - Component Details

Daniel & Michelle Stagg
291 SW Equestrian Way
Lake City, FL 32024-

Project Title:
Stagg Residence

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Winter Temperature Difference: 39.0 F

12/3/2007

Window	Panes/SHGC/Frame/U	Orientation	Area X	HTM=	Load
1	2, Clear, Metal, DEF	N	10.0	28.3	283 Btuh
2	2, Clear, Metal, DEF	N	15.0	28.3	424 Btuh
3	2, Clear, Metal, DEF	E	16.0	28.3	453 Btuh
4	2, Clear, Metal, DEF	E	30.0	28.3	849 Btuh
5	2, Clear, Metal, DEF	W	15.0	28.3	424 Btuh
6	2, Clear, Metal, DEF	W	60.0	28.3	1698 Btuh
7	2, Clear, Metal, DEF	S	12.0	28.3	340 Btuh
8	2, Clear, Metal, DEF	S	16.0	28.3	453 Btuh
	Window Total		174		4924 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Concrete - Exterior	15.0	1926	2.4	4622 Btuh
	Wall Total		1926		4622 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Exter		60	18.3	1100 Btuh
2	Insulated - Exter		18	18.3	330 Btuh
	Door Total		78		1430Btuh
Ceilings	Type	R-Value	Area X	HTM=	Load
1	Under Attic	30.0	2170	1.3	2821 Btuh
	Ceiling Total		2170		2821Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab-On-Grade Edge Insul	1	214.0 ft(p)	28.5	6099 Btuh
	Floor Total		214		6099 Btuh
Infiltration	Type	ACH X	Building Volume	CFM=	Load
	Natural	0.40	19530(sqft)	130	5597 Btuh
	Mechanical			200	8580 Btuh
	Infiltration Total			330	14177 Btuh

Totals for Heating	**Subtotal**	**34073 Btuh**
	Duct Loss(using duct multiplier of 0.00)	**0 Btuh**
	Total Btuh Loss	**34073 Btuh**

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(Frame types - metal, wood or insulated metal)
(U - Window U-Factor or 'DEF' for default)
(HTM - ManualJ Heat Transfer Multiplier)
Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types)

System Sizing Calculations - Summer

Residential Load - Component Details

Daniel & Michelle Stagg
291 SW Equestrian Way
Lake City, FL 32024-

Project Title:
Stagg Residence

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 18.0 F 12/3/2007

Window	Type Panes/SHGC/U/InSh/ExSh	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load	
1	2, Clear, DEF, B, N	N	1.33	8	10.0	0.0	10.0	15	15	150	Btuh
2	2, Clear, DEF, B, N	N	1.33	7	15.0	0.0	15.0	15	15	225	Btuh
3	2, Clear, DEF, B, N	E	10.4	7	16.0	16.0	0.0	15	46	240	Btuh
4	2, Clear, DEF, B, N	E	10.3	7	30.0	30.0	0.0	15	46	450	Btuh
5	2, Clear, DEF, B, N	W	1.33	7	15.0	0.0	15.0	15	46	690	Btuh
6	2, Clear, DEF, B, N	W	9.33	7	60.0	60.0	0.0	15	46	900	Btuh
7	2, Clear, DEF, B, N	S	1.41	4	12.0	12.0	0.0	15	24	180	Btuh
8	2, Clear, DEF, B, N	S	1.33	6	16.0	16.0	0.0	15	24	240	Btuh
	Window Total				174					3075	Btuh

Walls	Type	R-Value	Area	HTM	Load	
1	Concrete - Exterior	15.0	1926.0	0.9	1753	Btuh
	Wall Total		1926.0		1753	Btuh

Doors	Type	Area	HTM	Load	
1	Insulated - Exter	60.0	10.1	608	Btuh
2	Insulated - Exter	18.0	10.1	183	Btuh
	Door Total	78.0		791	Btuh

Ceilings	Type/Color	R-Value	Area	HTM	Load	
1	Under Attic/Dark	30.0	2170.0	1.4	3081	Btuh
	Ceiling Total		2170.0		3081	Btuh

Floors	Type	R-Value	Size	HTM	Load	
1	Slab-On-Grade Edge Insulation	1.0	214.0 ft(p)	0.0	0	Btuh
	Floor Total		214.0		0	Btuh

Infiltration	Type	ACH	Volume	CFM=	Load	
	Natural	0.35	19530	114.2	2260	Btuh
	Mechanical			200	3960	Btuh
	Infiltration Total			314	6220	Btuh

Internal gain		Occupants		Btuh/occupant		Appliance	Load	
		6	X	300	+	1200	3000	Btuh

Totals for Cooling	**Subtotal**	**17920**	**Btuh**
	Duct gain(using duct multiplier of 0.00)	**0**	**Btuh**
	Total sensible gain	**17920**	**Btuh**
	Latent infiltration gain (for 51 gr. humidity difference)	**10895**	**Btuh**
	Latent occupant gain (6 people @ 230 Btuh per person)	**1380**	**Btuh**
	Latent other gain	**0**	**Btuh**
	TOTAL GAIN	**30195**	**Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Daniel & Michelle Stagg
291 SW Equestrian Way
Lake City, FL 32024-

Project Title:
Stagg Residence

Code Only
Professional Version
Climate: North

12/3/2007

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(U - Window U-Factor or 'DEF' for default)
(InSh - Interior shading device: none(N), Blinds/Daperies(B) or Roller Shades(R))
(ExSh - Exterior shading device: none(N) or numerical value)
(Ornt - compass orientation)