

DOORS

✓	#	Ornt	Door Type	Storms	U-Value	Area
✓	1	SW	Insulated	None	0.4	24 ft²
✓	2	SW	Insulated	None	0.4	16.66666

WINDOWS

Orientation shown is the entered, asBuilt orientation.

✓	#	Ornt	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang Depth Separation	Int Shade	Screening
✓	1	SW	Metal	Low-E Single	Yes	0.65	0.55	N	15 ft²	1 ft 4 in 1 ft 6 in	HERS 2006	None
✓	2	SW	Metal	Low-E Single	Yes	0.65	0.55	N	15 ft²	1 ft 4 in 1 ft 6 in	HERS 2006	None
✓	3	SW	Metal	Low-E Single	Yes	0.65	0.55	N	6.666666	1 ft 4 in 1 ft 6 in	HERS 2006	None
✓	4	SW	Metal	Low-E Single	Yes	0.65	0.55	N	6.666666	1 ft 4 in 1 ft 6 in	HERS 2006	None
✓	5	SW	Metal	Low-E Single	Yes	0.65	0.55	N	3 ft²	1 ft 4 in 1 ft 0 in	HERS 2006	None
✓	6	SW	Metal	Low-E Single	Yes	0.65	0.55	N	15 ft²	1 ft 4 in 1 ft 6 in	HERS 2006	None
✓	7	SW	Metal	Low-E Single	Yes	0.65	0.55	N	15 ft²	1 ft 4 in 1 ft 6 in	HERS 2006	None
✓	8	SW	Metal	Low-E Single	Yes	0.65	0.55	N	15 ft²	1 ft 4 in 1 ft 6 in	HERS 2006	None
✓	9	NW	Metal	Low-E Single	Yes	0.65	0.55	N	8 ft²	1 ft 0 in 7 ft 0 in	HERS 2006	None
✓	10	NE	Metal	Low-E Single	Yes	0.65	0.55	N	9 ft²	20 ft 0 in 1 ft 6 in	HERS 2006	None
✓	11	NE	Metal	Low-E Single	Yes	0.65	0.55	N	24 ft²	1 ft 0 in 1 ft 6 in	HERS 2006	None
✓	12	NE	Metal	Low-E Single	Yes	0.65	0.55	N	40 ft²	10 ft 0 in 1 ft 6 in	HERS 2006	None
✓	13	NE	Metal	Low-E Single	Yes	0.65	0.55	N	15 ft²	1 ft 4 in 1 ft 6 in	HERS 2006	None

INFILTRATION & VENTING

✓	Method	SLA	CFM 50	ACH 50	ELA	EqLA	— Forced Ventilation — Supply CFM Exhaust CFM	Run Time Fraction	Fan Watts
✓	Default	0.00036	1634	6.23	89.7	168.7	0 cfm 0 cfm	0	0

COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Ducts
✓	1	Central Unit	None	SEER: 14	35 kBtu/hr	1167 cfm	0.7	sys#1

HEATING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Ducts
✓	1	Electric Heat Pump	None	HSPF: 8.2	34 kBtu/hr	sys#1

HOT WATER SYSTEM

✓	#	System Type	EF	Cap	Use	SetPnt	Conservation
✓	1	Electric	0.92	50 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			ft²		

DUCTS

✓	#	— Supply — Location	R-Value	Area	— Return — Location	Area	Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF
_____	1	Attic	6	240 ft²	Attic	85 ft²	Default Leakage	Attic	(Default)	(Default) %		

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

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: SW STRICKLAND GLENN LANE
LAKE CITY, FL, 32025-

PERMIT #:

INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	N1106.AB.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	N1106.AB.1.2	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	N1106.AB.1.2	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	N1106.AB.1.2	Between walls & ceilings; penetrations of ceiling plane to 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	N1106.AB.1.2	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 with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	N1106.AB.1.2	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	N1106.AB.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	N1112.AB.3	Comply with efficiency requirements in Table N1112.ABC.3 Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	N1112.AB.2.3	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%. Heat pump pool heaters shall have a minimum COP of 4.0.	
Shower heads	N1112.AB.2.4	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	N1110.AB	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated and installed in accordance with the criteria of Section N1110.AB. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	N1107.AB.2	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	N1104.AB.1 N1102.B.1.1	Ceilings-Min. R-19. Common walls-frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

Residential Window Diversity

MidSummer

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

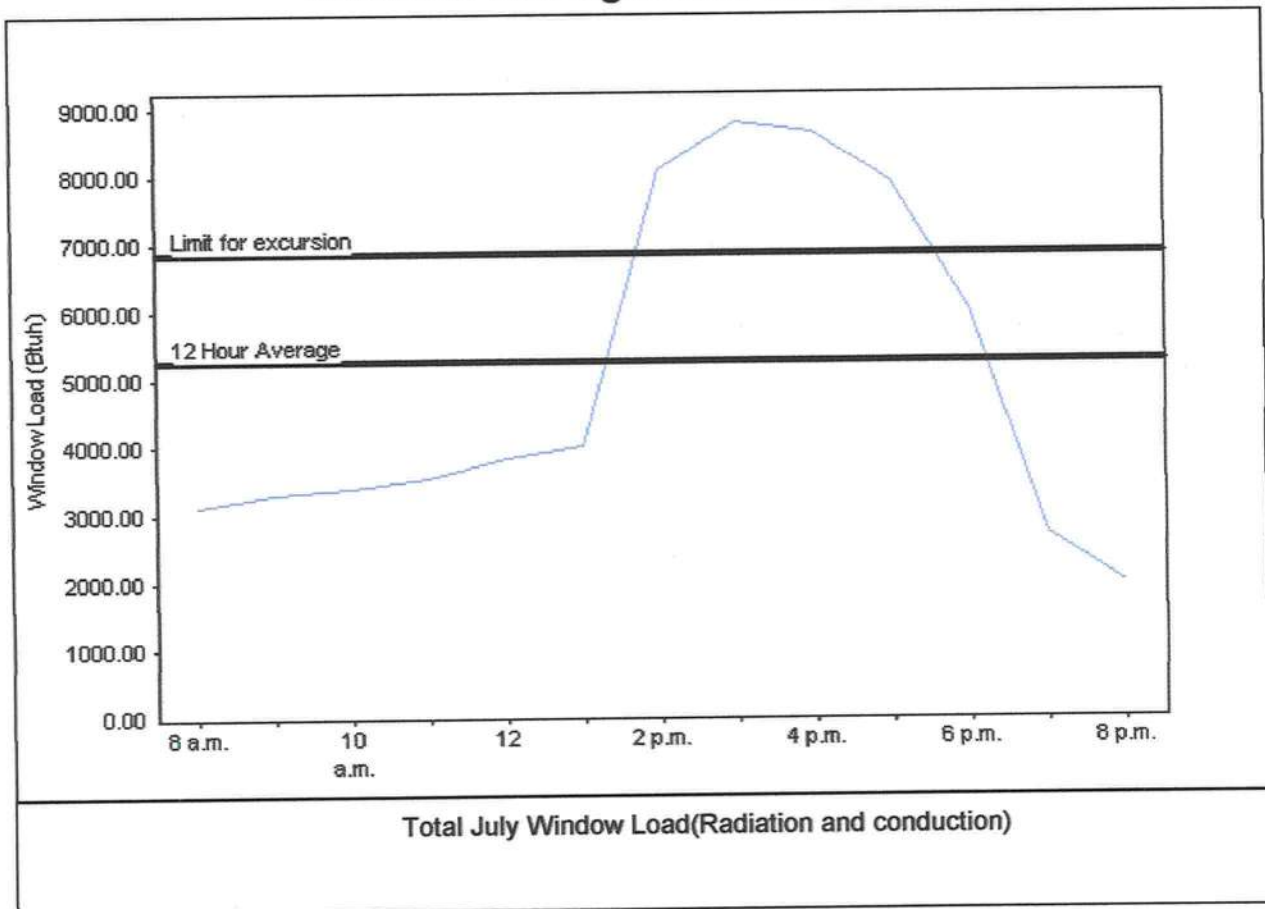
Project Title:
THE BEDFORD B (CSF 1730)

4/18/2011

Weather data for: Tallahassee - Defaults

Summer design temperature	93 F	Average window load for July	5281 Btuh
Cooling setpoint	75 F	Peak window load for July	8790 Btuh
Summer temperature difference	18 F	Excursion limit(130% of Ave.)	6865 Btuh
Latitude	30.38 North	Window excursion (July)	1926 Btuh

WINDOW Average and Peak Loads



This application has glass areas that produce large heat gains for part of the day. Variable air volume devices are required to overcome spikes in solar gain for one or more rooms. Install a zoned system or provide zone control for problem rooms. Single speed equipment may not be suitable for the application.

EnergyGauge® System Sizing for Florida residences only

PREPARED BY: [Signature]

DATE: 4-18-11

EnergyGauge® / USRCZB v2.8



System Sizing Calculations - Summer

Residential Load - Room by Room Component Details

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title:
THE BEDFORD B (CSF 1730)

4/18/2011

Reference City: Tallahassee, FL

Temperature Difference: 18.0F(MJ8 99%) Humidity difference: 46gr.

Component Loads for Room/Zone #1: Main

Window	Type*						Overhang		Window Area(sqft)			HTM		Load	
	Panes	SHGC	U	InSh	IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	15.0	2.0	13.0	16	34	480	Btuh
2	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	15.0	2.0	13.0	16	34	480	Btuh
3	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	6.7	0.7	6.0	16	34	218	Btuh
4	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	6.7	0.7	6.0	16	34	218	Btuh
5	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.0ft.	3.0	3.0	0.0	16	34	47	Btuh
6	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	15.0	2.0	13.0	16	34	480	Btuh
7	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	15.0	2.0	13.0	16	34	480	Btuh
8	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	15.0	2.0	13.0	16	34	480	Btuh
9	1 NFRC	0.55, 0.65	B-L	H	NW		1.0ft.	7.0ft.	8.0	0.0	8.0	16	32	256	Btuh
10	1 NFRC	0.55, 0.65	B-L	H	NE		20.0f	1.5ft.	9.0	0.0	9.0	16	32	288	Btuh
11	1 NFRC	0.55, 0.65	B-L	H	NE		1.0ft.	1.5ft.	24.0	0.0	24.0	16	32	768	Btuh
12	1 NFRC	0.55, 0.65	B-L	H	NE		10.0f	1.5ft.	40.0	0.0	40.0	16	32	1280	Btuh
13	1 NFRC	0.55, 0.65	B-L	H	NE		1.3ft.	1.5ft.	15.0	0.0	15.0	16	32	480	Btuh
Window Total									187 (sqft)					5956 Btuh	
Walls	Type	U-Value		R-Value		Area(sqft)		HTM		Load					
1	Frame - Wood - Ext		0.09		11.0/0.0		413.0		2.6		1062 Btuh				
2	Frame - Wood - Ext		0.09		11.0/0.0		253.9		2.6		653 Btuh				
3	Frame - Wood - Ext		0.09		11.0/0.0		457.0		2.6		1175 Btuh				
4	Frame - Wood - Ext		0.09		11.0/0.0		261.9		2.6		673 Btuh				
Wall Total							1386 (sqft)			3563 Btuh					
Doors	Type	Area (sqft)		HTM		Load									
1	Insulated - Exterior	24.0		11.6		278 Btuh									
2	Insulated - Exterior	16.7		11.6		193 Btuh									
Door Total							41 (sqft)			472 Btuh					
Ceilings	Type/Color/Surface	U-Value		R-Value		Area(sqft)		HTM		Load					
1	Vented Attic/Light/Shingle	0.049		19.0/0.0		1730.0		2.11		3647 Btuh					
Ceiling Total							1730 (sqft)			3647 Btuh					
Floors	Type	R-Value		Size		HTM		Load							
1	Stem/Crawlsp(Carpet)(v)	19.0		1730 (sqft)		0.7		1206 Btuh							
Floor Total							1730.0 (sqft)			1206 Btuh					
Zone Envelope Subtotal:												14843 Btuh			
Infiltration	Type	ACH		Volume(cuft)		Wall Ratio		CFM=		Load					
	SensibleNatural	0.40		15743		1.00		105.0		2074 Btuh					
Internal gain	Occupants	Btuh/occupant		Appliance		Load									
	4	X 230 +		2400		3320 Btuh									
Sensible Envelope Load:												20236 Btuh			
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic)										(DGM of 0.158)		3196 Btuh		
Sensible Zone Load												23432 Btuh			

Manual J Summer Calculations

Residential Load - Component Details (continued)

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title: Climate: FL_TALLAHASSEE_REGIONAL_A
THE BEDFORD B (CSF 1730)

4/18/2011

The following window Excursion will be assigned to the system loads.

Windows	July excursion for System 1	Excursion Subtotal:	1926 Btuh 1926 Btuh
Duct load			304 Btuh
		Sensible Excursion Load	2230 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title: Climate:FL_TALLAHASSEE_REGIONAL_A
THE BEDFORD B (CSF 1730)

4/18/2011

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	22162 Btuh
	Sensible Duct Load	3500 Btuh
	Total Sensible Zone Loads	25662 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	25662 Btuh
	Latent infiltration gain (for 46 gr. humidity difference)	3276 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	732 Btuh
	Latent occupant gain (4 people @ 200 Btuh per person)	800 Btuh
	Latent other gain	3400 Btuh
	Latent total gain	8208 Btuh
	TOTAL GAIN	33870 Btuh

EQUIPMENT

1. Central Unit	#	35000 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 - Room by Room Component Details

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title:
THE BEDFORD B (CSF 1730)
Building Type: User

4/18/2011

Reference City: Tallahassee, FL (Defaults) Winter Temperature Difference: 42.0 F (MJ8 99%)

Component Loads for Room/Zone #1: Main

Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	1, NFRC 0.55	Metal	0.65	SW	15.0		27.3	410 Btuh
2	1, NFRC 0.55	Metal	0.65	SW	15.0		27.3	410 Btuh
3	1, NFRC 0.55	Metal	0.65	SW	6.7		27.3	182 Btuh
4	1, NFRC 0.55	Metal	0.65	SW	6.7		27.3	182 Btuh
5	1, NFRC 0.55	Metal	0.65	SW	3.0		27.3	82 Btuh
6	1, NFRC 0.55	Metal	0.65	SW	15.0		27.3	410 Btuh
7	1, NFRC 0.55	Metal	0.65	SW	15.0		27.3	410 Btuh
8	1, NFRC 0.55	Metal	0.65	SW	15.0		27.3	410 Btuh
9	1, NFRC 0.55	Metal	0.65	NW	8.0		27.3	218 Btuh
10	1, NFRC 0.55	Metal	0.65	NE	9.0		27.3	246 Btuh
11	1, NFRC 0.55	Metal	0.65	NE	24.0		27.3	655 Btuh
12	1, NFRC 0.55	Metal	0.65	NE	40.0		27.3	1092 Btuh
13	1, NFRC 0.55	Metal	0.65	NE	15.0		27.3	410 Btuh
Window Total					187.3(sqft)			5114 Btuh
Walls	Type	Ormt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.095)	11.0/0.0	413		3.98	1646 Btuh
2	Frame - Wood	- Ext	(0.095)	11.0/0.0	254		3.98	1012 Btuh
3	Frame - Wood	- Ext	(0.095)	11.0/0.0	457		3.98	1821 Btuh
4	Frame - Wood	- Ext	(0.095)	11.0/0.0	262		3.98	1044 Btuh
Wall Total					1386(sqft)			5522 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Exterior, n		(0.400)		24		16.8	403 Btuh
2	Insulated - Exterior, n		(0.400)		17		16.8	280 Btuh
Door Total					41(sqft)			683Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM=	Load
1	Vented Attic/L/Shing		(0.049)	19.0/0.0	1730		2.1	3562 Btuh
Ceiling Total					1730(sqft)			3562Btuh
Floors	Type		Ueff.	R-Value	Size	X	HTM=	Load
1	Stem/Crawlsp(Carpet)(v)		(0.049)	19.0/0.0	1730.0 sqft		1.6	2794 Btuh
Floor Total					1730 sqft			2794 Btuh
Zone Envelope Subtotal:								17675 Btuh
Infiltration	Type		ACH	Zone Volume	Wall Ratio		CFM=	Load
	Natural		0.50	15743	1.00		131.2	6048 Btuh
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic)						(DLM of 0.132)	3121 Btuh
Zone #1	Sensible Zone Subtotal							26844 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title:
THE BEDFORD B (CSF 1730)
Building Type: User

4/18/2011

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	26844 Btuh
	Ventilation Sensible Heat Loss	0 Btuh
	Total Heat Loss	26844 Btuh

EQUIPMENT

1. Electric Heat Pump	#	34000 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

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title:
THE BEDFORD B (CSF 1730)

4/18/2011

Reference City: Tallahassee, FL

Temperature Difference: 18.0F(MJ8 99%)

Humidity difference: 46gr.

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	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	15.0	2.0	13.0	16	34	480 Btuh
2	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	15.0	2.0	13.0	16	34	480 Btuh
3	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	6.7	0.7	6.0	16	34	218 Btuh
4	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	6.7	0.7	6.0	16	34	218 Btuh
5	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.0ft.	3.0	3.0	0.0	16	34	47 Btuh
6	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	15.0	2.0	13.0	16	34	480 Btuh
7	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	15.0	2.0	13.0	16	34	480 Btuh
8	1 NFRC	0.55, 0.65	B-L	H	SW		1.3ft.	1.5ft.	15.0	2.0	13.0	16	34	480 Btuh
9	1 NFRC	0.55, 0.65	B-L	H	NW		1.0ft.	7.0ft.	8.0	0.0	8.0	16	32	256 Btuh
10	1 NFRC	0.55, 0.65	B-L	H	NE		20.0f	1.5ft.	9.0	0.0	9.0	16	32	288 Btuh
11	1 NFRC	0.55, 0.65	B-L	H	NE		1.0ft.	1.5ft.	24.0	0.0	24.0	16	32	768 Btuh
12	1 NFRC	0.55, 0.65	B-L	H	NE		10.0f	1.5ft.	40.0	0.0	40.0	16	32	1280 Btuh
13	1 NFRC	0.55, 0.65	B-L	H	NE		1.3ft.	1.5ft.	15.0	0.0	15.0	16	32	480 Btuh
	Excursion													1926 Btuh
	Window Total								187 (sqft)					7882 Btuh
Walls	Type					U-Value	R-Value	Area(sqft)			HTM		Load	
							Cav/Sheath							
	1	Frame - Wood - Ext				0.09	11.0/0.0	413.0			2.6		1062 Btuh	
	2	Frame - Wood - Ext				0.09	11.0/0.0	253.9			2.6		653 Btuh	
	3	Frame - Wood - Ext				0.09	11.0/0.0	457.0			2.6		1175 Btuh	
	4	Frame - Wood - Ext				0.09	11.0/0.0	261.9			2.6		673 Btuh	
	Wall Total								1386 (sqft)					3563 Btuh
Doors	Type							Area (sqft)			HTM		Load	
	1	Insulated - Exterior						24.0			11.6		278 Btuh	
	2	Insulated - Exterior						16.7			11.6		193 Btuh	
		Door Total								41 (sqft)				
Ceilings	Type/Color/Surface					U-Value	R-Value	Area(sqft)			HTM		Load	
	1	Vented Attic/Light/Shingle				0.049	19.0/0.0	1730.0			2.11		3647 Btuh	
		Ceiling Total								1730 (sqft)				
Floors	Type						R-Value	Size			HTM		Load	
	1	Stem/Crawlsp(Carpet)(v)					19.0	1730 (sqft)			0.7		1206 Btuh	
		Floor Total								1730.0 (sqft)				
	Envelope Subtotal:													16768 Btuh
Infiltration	Type					ACH	Volume(cuft)		Wall Ratio		CFM=		Load	
	SensibleNatural					0.40	15743		1386		131.2		2074 Btuh	
Internal gain						Occupants	Btuh/occupant		Appliance		Load			
						4	X 230		+		2400		3320 Btuh	
	Sensible Envelope Load:													22162 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title: Climate:FL_TALLAHASSEE_REGIONAL_A
THE BEDFORD B (CSF 1730)

4/18/2011

Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic)	(DGM of 0.158)	3500 Btuh
		Sensible Load All Zones	25662 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title: Climate:FL_TALLAHASSEE_REGIONAL_A
THE BEDFORD B (CSF 1730)

4/18/2011

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	22162 Btuh
	Sensible Duct Load	3500 Btuh
	Total Sensible Zone Loads	25662 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	25662 Btuh
	Latent infiltration gain (for 46 gr. humidity difference)	3276 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	732 Btuh
	Latent occupant gain (4 people @ 200 Btuh per person)	800 Btuh
	Latent other gain	3400 Btuh
	Latent total gain	8208 Btuh
	TOTAL GAIN	33870 Btuh

EQUIPMENT

1. Central Unit	#	35000 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

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title:
THE BEDFORD B (CSF 1730)
Building Type: User

4/18/2011

Reference City: Tallahassee, FL (Defaults) Winter Temperature Difference: 42.0 F (MJ8 99%)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	1, NFRC 0.55	Metal	0.65	SW	15.0		27.3	410 Btuh
2	1, NFRC 0.55	Metal	0.65	SW	15.0		27.3	410 Btuh
3	1, NFRC 0.55	Metal	0.65	SW	6.7		27.3	182 Btuh
4	1, NFRC 0.55	Metal	0.65	SW	6.7		27.3	182 Btuh
5	1, NFRC 0.55	Metal	0.65	SW	3.0		27.3	82 Btuh
6	1, NFRC 0.55	Metal	0.65	SW	15.0		27.3	410 Btuh
7	1, NFRC 0.55	Metal	0.65	SW	15.0		27.3	410 Btuh
8	1, NFRC 0.55	Metal	0.65	SW	15.0		27.3	410 Btuh
9	1, NFRC 0.55	Metal	0.65	NW	8.0		27.3	218 Btuh
10	1, NFRC 0.55	Metal	0.65	NE	9.0		27.3	246 Btuh
11	1, NFRC 0.55	Metal	0.65	NE	24.0		27.3	655 Btuh
12	1, NFRC 0.55	Metal	0.65	NE	40.0		27.3	1092 Btuh
13	1, NFRC 0.55	Metal	0.65	NE	15.0		27.3	410 Btuh
Window Total					187.3(sqft)			5114 Btuh
Walls	Type	Ormt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.095)	11.0/0.0	413		3.98	1646 Btuh
2	Frame - Wood	- Ext	(0.095)	11.0/0.0	254		3.98	1012 Btuh
3	Frame - Wood	- Ext	(0.095)	11.0/0.0	457		3.98	1821 Btuh
4	Frame - Wood	- Ext	(0.095)	11.0/0.0	262		3.98	1044 Btuh
Wall Total					1386(sqft)			5522 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Exterior, n		(0.400)		24		16.8	403 Btuh
2	Insulated - Exterior, n		(0.400)		17		16.8	280 Btuh
Door Total					41(sqft)			683Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM=	Load
1	Vented Attic/L/Shing		(0.049)	19.0/0.0	1730		2.1	3562 Btuh
Ceiling Total					1730(sqft)			3562Btuh
Floors	Type		Ueff.	R-Value	Size	X	HTM=	Load
1	Stem/Crawlsp(Carpet)(v)		(0.049)	19.0/0.0	1730.0 sqft		1.6	2794 Btuh
Floor Total					1730 sqft			2794 Btuh
Envelope Subtotal:								17675 Btuh
Infiltration	Type		ACH	Volume(cuft)	Wall Ratio		CFM=	Load
	Natural		0.50	15743	1.00		131.2	6048 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.132)							3121 Btuh
All Zones	Sensible Subtotal All Zones							26844 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title:
THE BEDFORD B (CSF 1730)
Building Type: User

4/18/2011

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	26844 Btuh
	Ventilation Sensible Heat Loss	0 Btuh
	Total Heat Loss	26844 Btuh

EQUIPMENT

1. Electric Heat Pump	#	34000 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

Residential System Sizing Calculation

Summary

J.C. & LULA FEAD
SW STRICKLAND GLENN LANE
LAKE CITY, FL 32025-

Project Title:
THE BEDFORD B (CSF 1730)

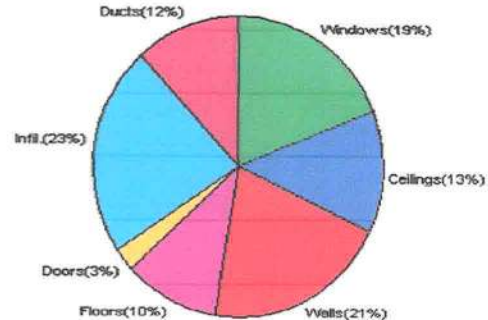
4/18/2011

Location for weather data: Tallahassee, FL - Defaults: Latitude(30.38) Altitude(69 ft.) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (76F) Humidity difference(46gr.)			
Winter design temperature(MJ8 99%)	28 F	Summer design temperature(MJ8 99%)	93 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	42 F	Summer temperature difference	18 F
Total heating load calculation	26844 Btuh	Total cooling load calculation	33870 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	126.7 34000	Sensible (SHR = 0.70)	95.5 24500
Heat Pump + Auxiliary(0.0kW)	126.7 34000	Latent	127.9 10500
		Total (Electric Heat Pump)	103.3 35000

WINTER CALCULATIONS

Winter Heating Load (for 1730 sqft)

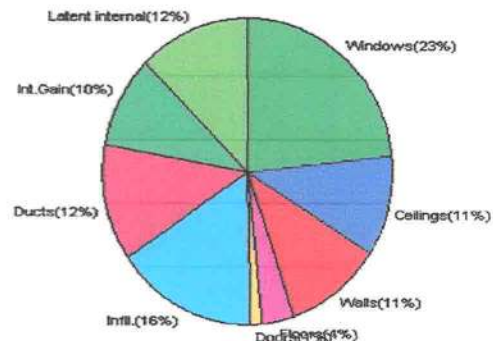
Load component		Load
Window total	187 sqft	5114 Btuh
Wall total	1386 sqft	5522 Btuh
Door total	41 sqft	683 Btuh
Ceiling total	1730 sqft	3562 Btuh
Floor total	1730 sqft	2794 Btuh
Infiltration	131 cfm	6048 Btuh
Duct loss		3121 Btuh
Subtotal		26844 Btuh
Ventilation	0 cfm	0 Btuh
TOTAL HEAT LOSS		26844 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1730 sqft)

Load component		Load
Window total	187 sqft	7882 Btuh
Wall total	1386 sqft	3563 Btuh
Door total	41 sqft	472 Btuh
Ceiling total	1730 sqft	3647 Btuh
Floor total		1206 Btuh
Infiltration	105 cfm	2074 Btuh
Internal gain		3320 Btuh
Duct gain		3500 Btuh
Sens. Ventilation	0 cfm	0 Btuh
Blower Load		0 Btuh
Total sensible gain		25662 Btuh
Latent gain(ducts)		732 Btuh
Latent gain(infiltration)		3276 Btuh
Latent gain(ventilation)		0 Btuh
Latent gain(internal/occupants/other)		4200 Btuh
Total latent gain		8208 Btuh
TOTAL HEAT GAIN		33870 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____

This contract provides for re-treatment of a structure and the repair of damages caused by wood destroying organisms within the limits stated in this contract.



SENTRICON® SYSTEM SERVICE AGREEMENT DAMAGE REPAIR & RETREAT GUARANTEE

☒ Eastern Subterranean Termites
☐ Formosan Termites

29403

Lula Fead

Account Name: 402 SW Strickland Glenn Last
Service Address: Lake City, FL 32055 Street
City: Lake City State: FL Zip Code: 32055
Service Phone: ☐ Home ☐ Office ☐ Fax Line
☐ Tenant ☐ Contact Person ☐ Home Phone ☐ Office Phone

American Home Place

Billing Name: 1756 Wells Road Ste H
Billing Address: Orange Park, FL 32073 Street
City: Orange Park State: FL Zip Code: 32073
Billing Phone: ☐ Home ☐ Office ☐ Fax Line
New Home Owner: ☐ Home Phone ☐ Office Phone

- TYPE OF STRUCTURE: ☒ RESIDENTIAL ☐ COMMERCIAL ☐ MULTI-UNIT BLDGS. #:
• STRUCTURES FOR SERVICE: ☒ MAIN DWELLING ☐ OTHER:
• TYPE OF INITIAL TREATMENT: ☐ POST-CONSTRUCTION ☒ NEW-CONSTRUCTION ☐ OTHER:
• LOCATION OF NOTICE OF SERVICE: ☐ N/A ☐ ATTIC ☒ CRAWL ☐ OTHER:
• PURPOSE OF SERVICE: ☒ PREVENTION ☐ PRESUMPTIVE EVIDENCE ☐ EXISTING INFESTATION

INITIAL INVESTMENT

Initial Cost: \$ 165.00
Other Fees: \$
Advanced Renewal Fee: \$
Sales Tax: \$
TOTAL INITIAL COST: \$ 165.00
Down Payment: \$
☐ CHECK ☐ CASH ☐ AMEX ☐ M/C ☐ VISA ☐ DISC
Acct. # Exp. Date

METHOD OF PAYMENT

BALANCE OF \$
☐ Due Upon Completion payable by: ☐ Check ☐ Cash ☐ Credit Card
☐ To be paid from Closing Proceeds or Within 30 Days, Whichever is First
☐ Approved Financing Payments @ \$ per month
☐ Other:
Renewal Maintenance Fee \$ 250.00
Renewal Frequency ☐ Monthly ☐ Quarterly ☒ Annually
Commencing On /

UPON RECEIVING FULL PAYMENT AND COMPLETING THE INITIAL SERVICE THE COMPANY WILL PROVIDE A DAMAGE REPAIR & RETREAT GUARANTEE FOR TERMITES AS SPECIFIED AND DESCRIBED IN THE PROVISIONS, TERMS AND CONDITIONS SET FORTH ON THE FRONT AND BACK OF THIS AGREEMENT, WHICH WILL PROVIDE A DETAILED EXPLANATION OF THE GUARANTEE ALONG WITH ALL DISCLAIMERS, LIMITATIONS, CONDITIONS OR EXCLUSIONS.

SERVICE PROVISIONS

ARROW EXTERMINATORS (The Company) is authorized by Dow AgroSciences LLC, to install the Sentricon® Colony Elimination System and conduct associated monitoring and treatment protocols on customer. The Sentricon® System allows for monitoring as well as bait treatment for subterranean termites containing the active ingredient Noviliumuron. The Customer acknowledges that subterranean termite control is not immediate. Specifically, control and/or colony elimination may take several months. Customer understands that the inherently delayed action of the insect growth regulator is necessary to deter avoidance behavior by foraging subterranean termites.

The Company shall provide the following termite control services to Customer under this agreement:

1. Initial inspection of applicable structures and grounds and installation of in-ground monitoring and/or bait stations around perimeter of structure at the Company's discretion.
2. Routine monitoring of bait stations by the Company service representatives, commencing with the installation of the system. All stations will be monitored within the guidelines as specified under the most current material label standards.
3. Application of Recruit® termiticide through bait tube insertions in bait stations upon confirmation of subterranean termite presence at monitoring sites. The Company may install additional stations and/or modify existing stations at its discretion.
4. Inform the Customer of any new or increased termite activity noted at any of the monitoring bait stations during any of the routine inspections.
5. Upon achieving colony elimination, the Company will provide for repairs of new subterranean termite damage as set forth in the provisions, terms and conditions of this agreement. The guarantee is effective immediately upon installation on structures which have no present or past termite activity.

As compensation for services rendered or to be rendered under this agreement, the Customer shall pay the Company an installation fee and maintenance fees, as specified, upon signing the agreement. This agreement and guarantee may be renewed for life by paying the Renewal Maintenance Fees on a consecutive basis, as specified by the Renewal Frequency, listed above. Failure to pay consecutive Renewal Maintenance Fees as specified by the Renewal Frequency, will render this agreement and guarantee null and void. After the first year adjustments to the Renewal Maintenance Fees may be made annually by the Company giving the Customer a minimum of thirty days notice regarding the new rate. This guarantee is transferable to a subsequent owner provided that the Renewal Maintenance Fees are paid on a consecutive basis from the time of the initial installation.

Customer agrees not to move, open, handle or damage Sentricon® stations, bait tubes or any other parts of the system. Tampering with such components may compromise the efficacy of the system and shall constitute a basis for terminating this agreement. The Customer may be responsible for the cost of replacement or repair of any damaged or missing bait stations that were not damaged or removed by the Company and/or its agent. The bait stations and associated materials (Sentricon® Components) provided by the Company are and shall remain the exclusive property of Dow AgroSciences LLC. Customer understands that he does not acquire any ownership interest or title to such components and that upon termination of this agreement for any cause whatsoever, the Company and/or Dow AgroSciences LLC are hereby authorized to remove all such components.

The guarantee in this agreement is in lieu of all other guarantees and warranties, expressed and implied, including the warranties of merchantability and fitness for a particular purpose. The customer is entitled to a copy of any treatment specifications, customer preparation sheets, checklists and any applicable release forms. All specifications and special circumstances have been fully explained to me.

ARROW EXTERMINATORS, INC.

Service Representative
5602 NW 13th Street, Gainesville, FL 32653
Address: 5602 NW 13th Street City: Gainesville State: FL Zip Code: 32653
Office Phone: 352-373-3642 Office Fax Line: 352-373-9037

Manager's Signature

Date: / /

TO THE PROPERTY OWNER OR PROPERTY MANAGER:

If this is a home solicitation you may cancel this agreement by providing written notice to the seller in person, by telegram or by mail. This notice must indicate that you do not want the goods or services and must be delivered or postmarked before midnight of the third business day after you sign this agreement. If you cancel this agreement, the seller cannot keep any part of a cash down payment. You are entitled to and should receive an exact executed copy of this agreement. This agreement is contingent on the approval of the franchise manager.

Accepted By:

☐ Owner/Buyer ☒ Authorized Agent Date: 5/28/2011