# Air America Heating & Cooling, Inc. PO Box 298 High Springs, Fl. 32655 CMC1250300

### Heat Load Summary Report for Bill and Stephanie Blanchard

Room	Square	Heating Loss	Hydronic Heat		/ Sensible	Cooling Gain	Cooling	Cooling
Name	Ft.	BTUH	Linear Ft.		ain BTUH	BTUH	Tons	CFM
Living Rm	336	4824	8.04	701	/ 6427	7128	0.59	238
Pantry	156	5549	9.25	1010	/ 4446	5455	0.45	182
Bath	66	837	1.39	259	/ 1317	1576	0.13	53
Bath 2	90	1291	2.15	281	/ 1437	1718	0.14	57
Bedroom	196	2395	3.99	575	/ 2401	2976	0.25	99
TOTALS	844	14895	24.83	2826	/ 16028	18853	1.57	629

#### Disclaimer

### Air America Heating & Cooling, Inc.

PO Box 298 High Springs, Fl. 32655 CMC1250300

# Heat Load Detail Report for Bill and Stephanie Blanchard

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•	Room 1 o	f 5		
Room Length (Ft.):       24       Sc         Room Width (Ft.):       14       Sc         Room Height (Ft.):       8       Sc         Exposed Wall Length (Ft.):       48       No         Wall against unconditioned room (Ft.):       Sc         Sq. Ft windows facing North:        No         Sq. Ft windows facing E & W:       18	q. Ft windows fac q. Ft windows fac q. Ft windows fac umber of Exterior q. Ft. Exterior Do umber of People	ing South: ing SE & SW: Doors: ors: 21 in Room: 2	Watts Incandescent Light: Watts Flourescent Light: Duct Length from A/H to roo Number of Large Electric M Average Electric Motor Hors BTUH Appliance Sensible H BTUH Appliance Latent Hea	otors: - sepower: - leat: -
Indoor/Outdoor Des	sign Tempera		arenheit)	
Summer: Inside (Thermostat setting): Outside (Above ground): Outside (Below ground): Unconditioned Space: Above Ceiling (Attic/Crawl Space): Concrete Slab (Ground temperature): Unconditioned Basement: Below Floor Crawl Space:	74 97 65 97 130 80 60 85	Winter: Inside (Thermostat se Outside (Above grour Outside (Below grour Unconditioned Space Above Ceiling (Attic/Concrete Slab (Grour Unconditioned Basen Below Floor Crawl Sp	nd : nd) : c : Crawl Space) : nd temperature) : nent :	72 20 60 65 45 55 55
Applicable Temperatures: Above Ceiling: Attic or	Crawl Space	Relow Floor: Concrete 5	Slab Exposed Walls: Above	Ground
Design Conditions  Occupant Sensible Load (BTUH per person): Occupant Latent Load (BTUH per person): Duct Insulation Factor: Duct Temperature Difference (Summer): Duct Temperature Difference (Winter): Humidity Difference Inside/Outside % (Summer Humidity Difference Inside/Outside %(Winter): Fresh Air Per Person (CFM): Air Change Factor (Air change per hour): Space Shading Factor: Air Handler Design Cooling (CFM per ton): Hydronic Heat (BTUH per linear ft:	250 200 1 20 45 r): 20 15 2 .5 .4 400 600	Insulation Exposed Walls (Above Exposed Walls (Belove Partitions: Roof/Ceiling: Floor (Above baseme Floor (Concrete slab) Floor (Between conditions: Windows:	Values (U-Factors)  /e Ground) : w Ground) :  ent) : ) : itioned spaces) :	.080 .5 .075 .055 .083 .001 .287 .500
Wall Heat Gain (BTUH): Ceiling or Roof Heat Gain (BTUH): Floor Heat Gain (BTUH): Glass Heat Gain (BTUH): Exterior Door & North Window Heat Gain (BTU Solar Heat Gain (BTUH): Total Transmission Heat Gain (BTUH):	707 1035 2 339 JH): 203 1548 3834	Appliance/Elec Moto Ventilation Latent He Ventilation Sensible Summer Total Latent Summer Total Sensi TOTAL SUMMER Co - Winter Heat Los Latent Ventilation He Hydronic Heat(Linea	r Latent Heat Gain (BTUH): r Sensible Heat Gain (BTUH): at Gain (BTUH): Gain (BTUH): t Heat Gain: ble Heat Gain (BTUH): OOLING LOAD (BTUH):  sses at Losses (BTUH): r Ft.):	301 558 701 6427 <b>7128</b> 226 8
		TOTAL WINTER HE	ATING LOAD (BTUH):	4824

# Calculated Totals for Entire Structure

Size of Structure (Sq. Ft.):	844	Total Sensible Heat Gain (BTUH):	16028
Total Heat Loss (BTUH):	14895	Total Cooling Gain (BTUH):	18853
Total Hydronic Heat (Linear Ft.):	24.83	Total Cooling Requirement (Tons):	1.57
Total Latent Heat Gain (BTUH):	2826	Total Cooling CFM:	629

#### Disclaimer

# Air America Heating & Cooling, Inc. PO Box 298 High Springs, Fl. 32655

CMC1250300

# Heat Load Detail Report for Bill and Stephanie Blanchard Room 2 of 5

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Room Length (Ft.):       12       Sq. F         Room Width (Ft.):       13       Sq. F         Room Height (Ft.):       8       Sq. F         Exposed Wall Length (Ft.):       16       Num         Wall against unconditioned room (Ft.):       16       Sq. F         Sq. Ft windows facing North:        Num         Sq. Ft windows facing E & W:       6	Ft windows faci Ft windows faci Ft windows faci ber of Exterior Ft. Exterior Doc ber of People i	ng South: ng SE & SW: Doors: ors: n Room:	  1 21	Watts Incandescent Light: Watts Flourescent Light: Duct Length from A/H to rooi Number of Large Electric Mc Average Electric Motor Hors BTUH Appliance Sensible Hi BTUH Appliance Latent Hea	otors: epower: eat:	1 1 1 1 1 1 1
Indoor/Outdoor Desig	an Tempera	tures (dear	ees Fa	arenheit)		
Summer:		Winter:	vein (1711) (1711) (1711) (1711)	The state of the s		
Inside (Thermostat setting): Outside (Above ground): Outside (Below ground): Unconditioned Space: Above Ceiling (Attic/Crawl Space): Concrete Slab (Ground temperature): Unconditioned Basement: Below Floor Crawl Space:	74 97 65 97 130 80 60 85	Inside (Thermo Outside (Abov Outside (Belov Unconditioned Above Ceiling	e ground w ground Space (Attic/C (Ground Basem	d: d): end: frawl Space): d temperature): ent:	72 20 60 65 45 55 55	
Below Floor Grawl Space .	00	501011 1 1001 0				
Applicable Temperatures: Above Ceiling: Attic or C	rawl Space B	elow Floor: Cor	ncrete S	lab Exposed Walls: Above	Ground	
Design Conditions		Insul	ation '	Values (U-Factors)		
Occupant Sensible Load (BTUH per person) :	250	Exposed Walls			.080	
Occupant Latent Load (BTUH per person):	200	Exposed Wall			.5	
Duct Insulation Factor :	1	Partitions :	- 1		.075	
Duct Temperature Difference (Summer) :	20	Roof/Ceiling:			.055	
Duct Temperature Difference (Winter):	45	Floor (Above I	baseme	nt):	.083	
Humidity Difference Inside/Outside % (Summer) :		Floor (Concre			.001	
Humidity Difference Inside/Outside %(Winter):	15				.287	
Fresh Air Per Person (CFM):	2	Doors :			.500	
Air Change Factor (Air change per hour) :	.5	Windows:			.900	
Space Shading Factor:	.4					
Air Handler Design Cooling (CFM per ton):	400					
Hydronic Heat (BTUH per linear ft :	600					
Calculated Roo		Summer H	leat G	aine		
				Latent Heat Gain (BTUH) :	200	
Wall Heat Gain (BTUH):	456 480	Appliance/Ele	c Motor	Sensible Heat Gain (BTUH)		
Ceiling or Roof Heat Gain (BTUH) :	1			t Gain (BTUH) :	810	
Floor Heat Gain (BTUH):	113	Ventilation Se			1501	
Glass Heat Gain (BTUH) : Exterior Door & North Window Heat Gain (BTUH)		Summer Tota			1010	
	516			le Heat Gain (BTUH) :	4446	
Solar Heat Gain (BTUH) : Total Transmission Heat Gain (BTUH) :	1770			OLING LOAD (BTUH) :	5455	
	10000				0.00	
Calculated Roo	m Results	<ul> <li>Winter He</li> </ul>	at Los	ses		
Transmission Heat Losses (BTUH):	1548	Latent Ventila	tion Hea	t Losses (BTUH):	607	
Sensible Ventilation Heat Losses (BTUH):	3393	Hydronic Hea			9	
		TOTAL MAURIT	ED HEA	TING LOAD (RTIIH) .	5549	

Transmission Heat Losses (BTUH):	1548	Latent Ventilation Heat Losses (BTUH):	607
Sensible Ventilation Heat Losses (BTUH):	3393	Hydronic Heat(Linear Ft.):	9
		TOTAL WINTER HEATING LOAD (BTUH):	5549

#### Calculated Totals for Entire Structure

Julio	MINEUM I COMIC IN	or militio oti dotalo	
Size of Structure (Sq. Ft.):	844	Total Sensible Heat Gain (BTUH):	16028
Total Heat Loss (BTUH):	14895	Total Cooling Gain (BTUH):	18853
Total Hydronic Heat (Linear Ft.):	24.83	Total Cooling Requirement (Tons):	1.57
Total Latent Heat Gain (BTUH):	2826	Total Cooling CFM:	629

#### Disclaimer

### Air America Heating & Cooling, Inc.

PO Box 298 High Springs, Fl. 32655 CMC1250300

# Heat Load Detail Report for Bill and Stephanie Blanchard Room 3 of 5

		Room Specif	ications: Bath			
Room Length (Ft.):	11	Sq. Ft windows	s facing NE & NW:		Watts Incandescent Light:	
Room Width (Ft.):	6	Sq. Ft windows	s facing South:		Watts Flourescent Light:	100
Room Height (Ft.):	6 8	Sq. Ft windows	facing SE & SW:		Duct Length from A/H to room:	
Exposed Wall Length (Ft.):	12	Number of Ext	erior Doors:		Number of Large Electric Motors:	
Wall against unconditioned room (	(Ft.):11	Sq. Ft. Exterio	r Doors:		Average Electric Motor Horsepower	
Sq. Ft windows facing North:		Number of Ped	pple in Room:	1	BTUH Appliance Sensible Heat:	***
Sq. Ft windows facing E & W:					BTUH Appliance Latent Heat:	
Summer:		z. zee.gii ioiii	Winter:			
	moutuo	or Design Temp		663	r areiment)	
Inside (Thermostat setting):		74	Inside (Therm	ostat	setting): 72	
Outside (Above ground):		97	Outside (Abov	ve gro	und : 20	
Outside (Below ground):		65	Outside (Belo	w grou	und): 60	
Unconditioned Space:		97	Unconditioned	d Spac	ce: 65	
Above Ceiling (Attic/Crawl Sp	pace):	130	Above Ceiling	(Attic	/Crawl Space): 45	
Concrete Slab (Ground temp	erature):	80	Concrete Slat	(Gro	und temperature): 55	
Unconditioned Basement :		60	Unconditioned	d Base	ement: 55	

Applicable Temperatures: Above Ceiling: Attic or Crawl Space Below Floor: Concrete Slab Exposed Walls: Above Ground

Below Floor Crawl Space:

85

Below Floor Crawl Space:

50

Design Conditions		Insulation Values (U-Factors)	
Occupant Sensible Load (BTUH per person):	250	Exposed Walls (Above Ground):	.080
Occupant Latent Load (BTUH per person):	200	Exposed Walls (Below Ground):	.5
Duct Insulation Factor:	1	Partitions :	.075
Duct Temperature Difference (Summer):	20	Roof/Ceiling:	.055
Duct Temperature Difference (Winter):	45	Floor (Above basement):	.083
Humidity Difference Inside/Outside % (Summer) :	20	Floor (Concrete slab) :	.001
Humidity Difference Inside/Outside %(Winter):	15	Floor (Between conditioned spaces):	.287
Fresh Air Per Person (CFM):	2	Doors:	.500
Air Change Factor (Air change per hour):	.5	Windows:	.900
Space Shading Factor:	.4		
Air Handler Design Cooling (CFM per ton):	400		
Hydronic Heat (BTUH per linear ft :	600		

Galculated	Room Resul	ts - Summer neat Gams		
Wall Heat Gain (BTUH):	328	Appliance/Elec Motor Latent Heat Gain (BTUH)	: 200	
Ceiling or Roof Heat Gain (BTUH):	203	Appliance/Elec Motor Sensible Heat Gain (BTUH): 67		
Floor Heat Gain (BTUH):	0	Ventilation Latent Heat Gain (BTUH):	59	
Glass Heat Gain (BTUH):	0	Ventilation Sensible Gain (BTUH):	110	
Exterior Door & North Window Heat Gain (I	BTUH): 0	Summer Total Latent Heat Gain:	259	

Solar Heat Gain (BTUH): Summer Total Sensible Heat Gain (BTUH): 1317 532 TOTAL SUMMER COOLING LOAD (BTUH): Total Transmission Heat Gain (BTUH): 1576

#### Calculated Room Results - Winter Heat Losses

Transmission Heat Losses (BTUH):	545	Latent Ventilation Heat Losses (BTUH):	44
Sensible Ventilation Heat Losses (BTUH):	248	Hydronic Heat(Linear Ft.):	1
1 (1000/2019) 4 (4		TOTAL WINTER HEATING LOAD (BTUH):	837

#### Calculated Totals for Entire Structure

Size of Structure (Sq. Ft.):	844	Total Sensible Heat Gain (BTUH):	16028
Total Heat Loss (BTUH):	14895	Total Cooling Gain (BTUH):	18853
Total Hydronic Heat (Linear Ft.):	24.83	Total Cooling Requirement (Tons):	1.57
Total Latent Heat Gain (BTUH):	2826	Total Cooling CFM:	629

#### Disclaimer

# Air America Heating & Cooling, Inc. PO Box 298 High Springs, Fl. 32655

CMC1250300

# Heat Load Detail Report for Bill and Stephanie Blanchard Room 4 of 5

	Room 4	of 5			
Roo	m Specifica	tions: Bath 2			
Room Length (Ft.):       10       S         Room Width (Ft.):       9       S         Room Height (Ft.):       8       S         Exposed Wall Length (Ft.):       9       N	q. Ft windows fa q. Ft windows fa	acing NE & NW: - acing South: - acing SE & SW: - or Doors: -	Watts Incandescent Light: Watts Flourescent Light: Duct Length from A/H to roc Number of Large Electric M Average Electric Motor Hors	om: - otors: -	100
	umber of People		BTUH Appliance Sensible F BTUH Appliance Latent Hea	leat: -	-
Indoor/Outdoor De	sign Tempe		es Farenheit)		
Summer:		Winter:			
Inside (Thermostat setting) :	74	Inside (Thermos	stat setting):	72	
Outside (Above ground):	97	Outside (Above		20	
Outside (Below ground):	65	Outside (Below		60	
Unconditioned Space :	97	Unconditioned S		65	
Above Ceiling (Attic/Crawl Space):	130	Above Ceiling (A	Attic/Crawl Space):	45	
Concrete Slab (Ground temperature):	80	Concrete Slab (	Ground temperature):	55	
Unconditioned Basement :	60	Unconditioned E		55	
Below Floor Crawl Space :	85	Below Floor Cra	awl Space :	50	
Applicable Temperatures: Above Ceiling: Attic or	Crawl Space		crete Slab Exposed Walls: Above	Ground	
Design Conditions			tion Values (U-Factors)		
Occupant Sensible Load (BTUH per person):	250	Exposed Walls	(Above Ground):	.080	
Occupant Latent Load (BTUH per person):	200	Exposed Walls	(Below Ground):	.5	
Duct Insulation Factor :	1	Partitions:		.075	
Duct Temperature Difference (Summer):	20	Roof/Ceiling:		.055	
Duct Temperature Difference (Winter):	45	Floor (Above ba	sement):	.083	
Humidity Difference Inside/Outside % (Summer	): 20	Floor (Concrete	slab):	.001	
Humidity Difference Inside/Outside %(Winter):	15	Floor (Between	conditioned spaces):	.287	
Fresh Air Per Person (CFM):	2	Doors:		.500	
Air Change Factor (Air change per hour):	.5	Windows:		.900	
Space Shading Factor:	.4				
Air Handler Design Cooling (CFM per ton):	400				
Hydronic Heat (BTUH per linear ft :	600				
Calculated Ro	om Results	- Summer He	at Gains		
Wall Heat Gain (BTUH) :	132	Appliance/Elec	Motor Latent Heat Gain (BTUH):	200	
Ceiling or Roof Heat Gain (BTUH):	277	Appliance/Elec	Motor Sensible Heat Gain (BTUH)	:675	
Floor Heat Gain (BTUH) :	1		nt Heat Gain (BTUH) :	81	
Glass Heat Gain (BTUH) :	0	Ventilation Sens	sible Gain (BTUH) :	149	
Exterior Door & North Window Heat Gain (BTU	H): 203		atent Heat Gain:	281	
Solar Heat Gain (BTUH) :	0	Summer Total S	Sensible Heat Gain (BTUH) :	1437	
Total Transmission Heat Gain (BTUH):	613		ER COOLING LOAD (BTUH):	1718	
Calculated Ro	oom Results	s - Winter Heat	Losses		
Transmission Heat Losses (BTUH):	893		on Heat Losses (BTUH) :	60	
Sensible Ventilation Heat Losses (BTUH) :	338	Hydronic Heat(I		2	
		김 소개를 받아 아니아 옷이 이번도 없는 사람이 되었다. 입사를	NATIONAL SANCTONISMA (CANTONISMA) CONTRACTOR	100000000000000000000000000000000000000	

### TOTAL WINTER HEATING LOAD (BTUH):

1291

Calc	culated Totals 10	or Entire Structure	
Size of Structure (Sq. Ft.):	844	Total Sensible Heat Gain (BTUH):	16028
Total Heat Loss (BTUH):	14895	Total Cooling Gain (BTUH):	18853
Total Hydronic Heat (Linear Ft.):	24.83	Total Cooling Requirement (Tons):	1.57
Total Latent Heat Gain (BTUH):	2826	Total Cooling CFM:	629

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# Air America Heating & Cooling, Inc.

PO Box 298 High Springs, Fl. 32655 CMC1250300

### Heat Load Detail Report for Bill and Stephanie Blanchard

Room 5 of 5

	r	doom Specifications: Bedroo	m		
Room Length (Ft.):	14	Sq. Ft windows facing NE & NW:		Watts Incandescent Light:	
Room Width (Ft.):	14	Sq. Ft windows facing South:	18	Watts Flourescent Light:	100
Room Height (Ft.):	8	Sq. Ft windows facing SE & SW:		Duct Length from A/H to room:	
Exposed Wall Length (Ft.):	14	Number of Exterior Doors:		Number of Large Electric Motors:	777
Wall against unconditioned roon	n (Ft.) :	Sq. Ft. Exterior Doors:		Average Electric Motor Horsepower:	
Sq. Ft windows facing North:		Number of People in Room:	2	BTUH Appliance Sensible Heat:	
Sq. Ft windows facing E & W:		TO ACCURATE TO CONSIDER FOR A STUDIO OF METAL THE ACCURATE OF A STANDARD OF		BTUH Appliance Latent Heat:	

#### Indoor/Outdoor Design Temperatures (degrees Farenheit)

Summer:		Winter:	
Inside (Thermostat setting):	74	Inside (Thermostat setting):	72
Outside (Above ground):	97	Outside (Above ground :	20
Outside (Below ground):	65	Outside (Below ground):	60
Unconditioned Space :	97	Unconditioned Space :	65
Above Ceiling (Attic/Crawl Space):	130	Above Ceiling (Attic/Crawl Space):	45
Concrete Slab (Ground temperature):	80	Concrete Slab (Ground temperature):	55
Unconditioned Basement :	60	Unconditioned Basement :	55
Below Floor Crawl Space :	85	Below Floor Crawl Space :	50

Applicable Temperatures: Above Ceiling: Attic or Crawl Space Below Floor: Concrete Slab Exposed Walls: Above Ground

Design Conditions	Insulation Values (U-Factors)

Occupant Sensible Load (BTUH per person):	250	Exposed Walls (Above Ground):	.080
Occupant Latent Load (BTUH per person):	200	Exposed Walls (Below Ground):	.5
Duct Insulation Factor:	1	Partitions :	.075
Duct Temperature Difference (Summer):	20	Roof/Ceiling:	.055
Duct Temperature Difference (Winter):	45	Floor (Above basement):	.083
Humidity Difference Inside/Outside % (Summer) :	20	Floor (Concrete slab) :	.001
Humidity Difference Inside/Outside %(Winter):	15	Floor (Between conditioned spaces):	.287
Fresh Air Per Person (CFM):	2	Doors :	.500
Air Change Factor (Air change per hour) :	.5	Windows:	.900
Space Shading Factor:	.4		
Air Handler Design Cooling (CFM per ton):	400		

#### Calculated Room Results - Summer Heat Gains

600

Hydronic Heat (BTUH per linear ft :

Wall Heat Gain (BTUH) :	206	Appliance/Elec Motor Latent Heat Gain (BTUH) :	400
Ceiling or Roof Heat Gain (BTUH):	604	Appliance/Elec Motor Sensible Heat Gain (BTUH	1):925
Floor Heat Gain (BTUH) :	1	Ventilation Latent Heat Gain (BTUH):	175
Glass Heat Gain (BTUH):	339	Ventilation Sensible Gain (BTUH):	325
Exterior Door & North Window Heat Gain (BT	UH): 0	Summer Total Latent Heat Gain:	575
Solar Heat Gain (BTUH):	0	Summer Total Sensible Heat Gain (BTUH):	2401
Total Transmission Heat Gain (BTUH):	1150	TOTAL SUMMER COOLING LOAD (BTUH):	2976

#### Calculated Room Results - Winter Heat Losses

		Trillian riode modern	
Transmission Heat Losses (BTUH):	1528	Latent Ventilation Heat Losses (BTUH):	132
Sensible Ventilation Heat Losses (BTUH):	735	Hydronic Heat(Linear Ft.):	4
		TOTAL WINTER HEATING LOAD (BTITH) .	2305

#### Calculated Totals for Entire Structure

Size of Structure (Sq. Ft.):	844	Total Sensible Heat Gain (BTUH):	16028
Total Heat Loss (BTUH):	14895	Total Cooling Gain (BTUH):	18853
Total Hydronic Heat (Linear Ft.):	24.83	Total Cooling Requirement (Tons):	1.57
Total Latent Heat Gain (BTUH):	2826	Total Cooling CFM:	629

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