Alabama Association of Habitat for Humanity® Affiliates

Load Short Form
Entire House
Your Contractor

Job: your job name
Date: Jun 15, 2009
By: designer name

Project Information

For:

Design Information

	Htg	Clg
Outside db (°F)	30	92
Inside db (°F)	70	75
Design TD (°F)	40	17
Daily range	-	M
Inside humidity (%)	30	50
Moisture difference (gr/lb)	13	49

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure / AVF	50 Pa / 500 cfm

HEATING EQUIPMENT

Make	Carrier
Trade	BASE 13 PURON HP
Model	25HBA324A31
ARI ref no.	1179280

Efficiency	8.3 HSPF	
Heating input		
Heating output	23800	Btuh @ 47°F
Temperature rise	28	°F
Actual air flow	767	cfm
Air flow factor	0.039	cfm/Btuh
Static pressure	0.50	in H2O
Space thermostat		

COOLING EQUIPMENT

Make	Carrier
Trade	BASE 13 PURON HP
Cond	25HBA324A31
Coil	FX4CNF024
ARI ref no.	1179280

Efficiency	14.0 EER, 16.9 SEER	
Sensible cooling	16100	Btuh
Latent cooling	6900	Btuh
Total cooling	23000	Btuh
Actual air flow	767	cfm
Air flow factor	0.058	cfm/Btuh
Static pressure	0.50	in H2O
Load sensible heat ratio	0.77	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bed 3	108	2645	1091	103	63
Bath	79	2096	586	81	34
Bed 2	124	1727	900	67	52
M Bath	51	862	216	33	13
Laundry	23	35	738	1	43
Kitchen	148	3446	4300	134	250
Living Room	288	4676	2257	181	131
Room9	104	163	171	6	10
Master B	184	4132	2951	160	171

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Entire House	1109	19783	13210	767	767
Other equip loads		2535	1095		
Equip. @ 0.97 RSM			13905		
Latent cooling			4193		
TOTALS	1109	22317	18098	767	767

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Component Constructions
Entire House
Your Contractor

Job: your job name
Date: Jun 15, 2009
By: designer name

Project Information

For:

Design Conditions

Location:
Mobile, AL, US
Elevation: 220 ft
Latitude: 31 °N

Outdoor:	Heating	Cooling
Dry bulb (°F)	30	92
Daily range (°F)	-	17 (M)
Wet bulb (°F)	-	77
Wind speed (mph)	15.0	7.5

Indoor:	Heating	Cooling
Indoor temperature (°F)	70	75
Design TD (°F)	40	17
Relative humidity (%)	30	50
Moisture difference (gr/lb)	13.2	49.2

Infiltration:

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure / AVF	50 Pa / 500 cfm

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12C-0sw: Frm wall, wd ext, 1/2" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm	n	343	0.091	13.0	3.62	1241	2.30	789
	ne	22	0.091	13.0	3.62	80	2.30	51
	e	140	0.091	13.0	3.62	506	2.30	322
	se	20	0.091	13.0	3.62	73	2.30	47
	s	250	0.091	13.0	3.62	905	2.30	576
	w	211	0.091	13.0	3.62	765	2.30	486
	all	986	0.091	13.0	3.62	3571	2.30	2270
12E-0sw: Frm wall, wd ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm	s	64	0.068	19.0	2.71	173	1.44	92
Partitions								
(none)								
Windows								
Pella Energy Star U.30 S.28: Pella Energy Star U.36 S.30; NFRC rated (SHGC=0.30); 100% drapes, medium; foreground = new concrete (0.32); 6 ft overhang (5 ft window ht, 1.5 ft sep.)	ne	10	0.360	0	14.3	143	28.7	287
Pella Energy Star U.30 S.28: Pella Energy Star U.36 S.30; NFRC rated (SHGC=0.30); 100% drapes, medium; 2 ft overhang (5 ft window ht, 1.5 ft sep.)	e	30	0.360	0	14.3	430	24.6	737
	s	30	0.360	0	14.3	430	9.12	274
	all	60	0.360	0	14.3	860	16.8	1011
Pella Energy Star U.33 S.31: Pella Energy Star U.33 S.31; NFRC rated (SHGC=0.31); 100% drapes, medium; foreground = new concrete (0.32); 8 ft overhang (5 ft window ht, 1.5 ft sep.)	e	20	0.330	0	13.1	263	18.7	374
Pella Energy Star U.30 S.28: Pella Energy Star U.36 S.30; NFRC rated (SHGC=0.30); 100% drapes, medium; foreground = new concrete (0.32); 9 ft overhang (5 ft window ht, 1.5 ft sep.)	se	10	0.360	0	14.3	143	19.1	191
Pella Energy Star U.40 S.31: Pella Energy Star U.40 S.31; NFRC rated (SHGC=0.31); foreground = new concrete (0.32); 12.5 ft overhang (6.8 ft window ht, 1.3 ft sep.)	w	41	0.400	0	15.9	650	23.3	951
Doors								
Door, Reliabilt U.14 embossed: Door, Reliabilt U.14 embossed	e	21	0.140	7.1	5.57	117	4.24	89

Ceilings							
16CR-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 1/2" gypsum board int fnsh	1109	0.032	30.0	1.27	1412	1.40	1554
Floors							
22A-vpm: Bg floor, heavy dry or light damp soil, vinyl flr fnsh	151	1.180	0	47.0	7103	0	0

Alabama Association of Habitat for Humanity® Affiliates

Project Summary
Entire House
Your Contractor

Job: your job name
Date: Jun 15, 2009
By: designer name

Project Information

For:

Notes: comments here

Design Information

Weather: Mobile, AL, US

Winter Design Conditions

Outside db	30	℉
Inside db	70	℉
Design TD	40	℉

Summer Design Conditions

Outside db	92	℉
Inside db	75	℉
Design TD	17	℉
Daily range	M	
Relative humidity	50	%
Moisture difference	49	gr/lb

Heating Summary

Structure	16143	Btuh
Ducts	3640	Btuh
Central vent (58 cfm)	2535	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	22317	Btuh

Sensible Cooling Equipment Load Sizing

Structure	10025	Btuh
Ducts	3185	Btuh
Central vent (58 cfm)	1095	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	13905	Btuh

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure / AVF	50 Pa / 500 cfm

	Heating	Cooling
Area (ft²)	1109	1109
Volume (ft³)	8869	8869
Air changes/hour	0.27	0.15
Equiv. AVF (cfm)	39	22

Latent Cooling Equipment Load Sizing

Structure	1519	Btuh
Ducts	737	Btuh
Central vent (58 cfm)	1938	Btuh
Equipment latent load	4193	Btuh
Equipment total load	18098	Btuh
Req. total capacity at 0.70 SHR	1.7	ton

Heating Equipment Summary

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ARI ref no.	1179280

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Cooling Equipment Summary

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Trade	BASE 13 PURON HP
Cond	25HBA324A31
Coil	FX4CNF024
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Efficiency	14.0 EER, 16.9 SEER	
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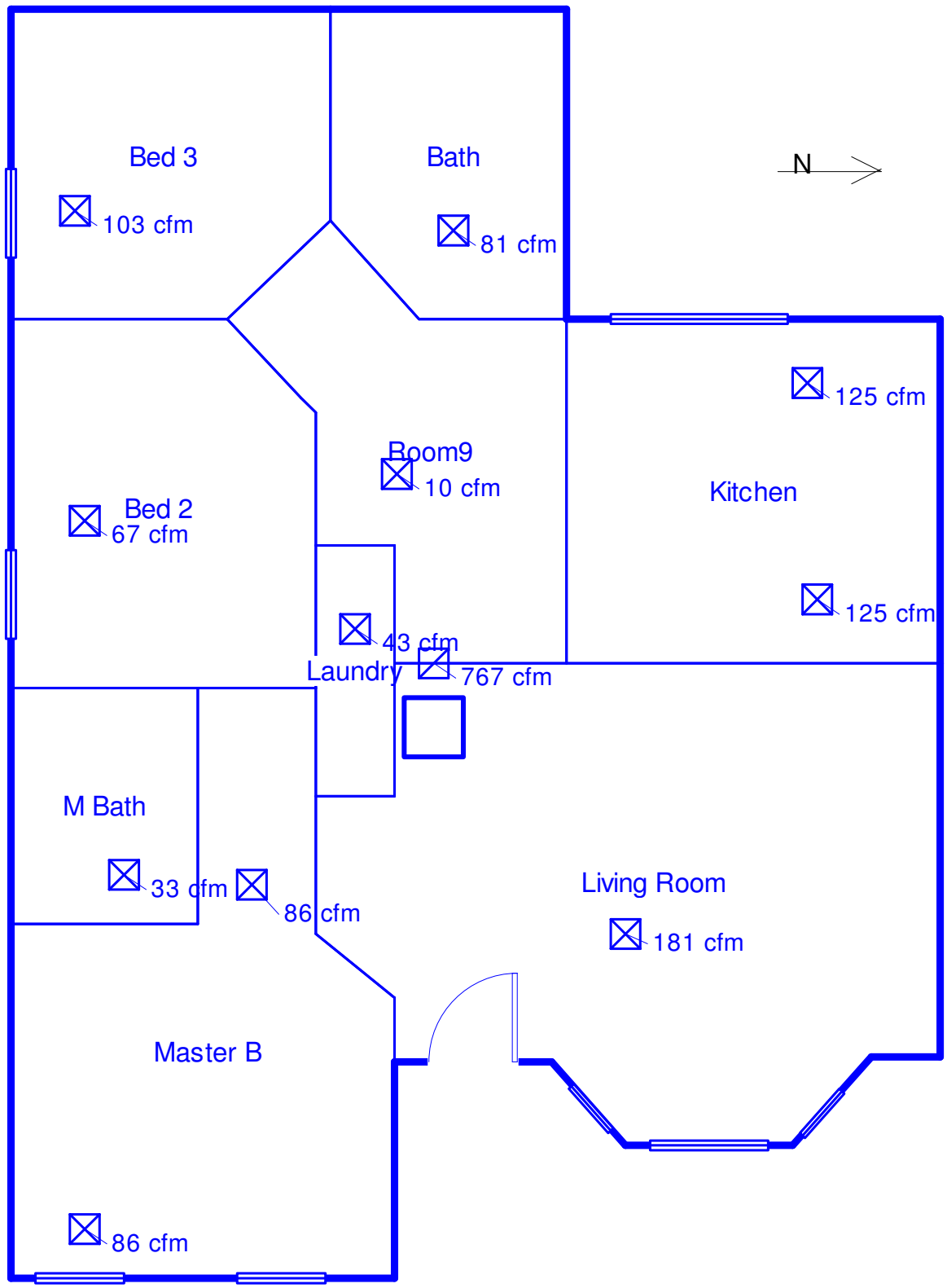
Sheet 1



Job #: your job name **Performed by designer name for:**	**Your Contractor**	Scale: 1 : 64 Page 1 Right-Suite® Universal 7.1.14 RSU09082 2009-Dec-04 09:48:33 D:_SBS_Files\Design Reviews\Mo...