

Project Information

For:
 Columbia County, FL

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	37	17	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	10	43		

HEATING EQUIPMENT

Make	
Trade	
Model	
AHRI ref	
Efficiency	80 AFUE
Heating input	0 Btuh
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	1136 cfm
Air flow factor	0.031 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

COOLING EQUIPMENT

Make	
Trade	
Cond	
Coil	
AHRI ref	
Efficiency	0 SEER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	1136 cfm
Air flow factor	0.045 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.77

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Hall	107	99	67	3	3
BR1 Bath	119	109	75	3	3
BR1 WIC	67	61	42	2	2
Bedroom 1	361	3101	2718	96	123
Great Room	560	3811	4646	119	210
Kitchen	412	3410	4355	106	197
Stairs	61	56	38	2	2
Bedroom 2	248	3628	1242	113	56
BR2 WIC	39	479	118	15	5
Bath	95	87	59	3	3
Storage	35	435	107	14	5
Movie Room	468	3737	3389	116	153
Laundry	126	3305	2083	103	94
Hall 2	58	53	36	2	2

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Living Space	967	9975	3448	310	156
Dining	322	4158	2731	129	123
Entire House	4043	36506	25155	1136	1136
Other equip loads		5778	2739		
Equip. @ 0.97 RSM			27169		
Latent cooling			8496		
TOTALS	4043	42284	35664	1136	1136

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Project Information

For: Columbia County, FL

Notes:

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	43 gr/lb

Heating Summary

Structure	32567 Btuh
Ducts	3938 Btuh
Central vent (144 cfm)	5778 Btuh
Outside air	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	42284 Btuh

Sensible Cooling Equipment Load Sizing

Structure	22504 Btuh
Ducts	2651 Btuh
Central vent (144 cfm)	2739 Btuh
Outside air	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	27169 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	3575 Btuh
Ducts	690 Btuh
Central vent (144 cfm)	4231 Btuh
Outside air	
Equipment latent load	8496 Btuh

	Heating	Cooling
Area (ft ²)	4042	4042
Volume (ft ³)	40433	40433
Air changes/hour	0.28	0.15
Equiv. AVF (cfm)	189	101

Equipment Total Load (Sen+Lat)	35664 Btuh
Req. total capacity at 0.70 SHR	3.2 ton

Heating Equipment Summary

Make	
Trade	
Model	
AHRI ref	
Efficiency	80 AFUE
Heating input	0 Btuh
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	1136 cfm
Air flow factor	0.031 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

Cooling Equipment Summary

Make	
Trade	
Cond	
Coil	
AHRI ref	
Efficiency	0 SEER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	1136 cfm
Air flow factor	0.045 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.77

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.