Residential System Sizing Calculation

Summary

Project Title:
1580 Model

Lake City, FL 32024

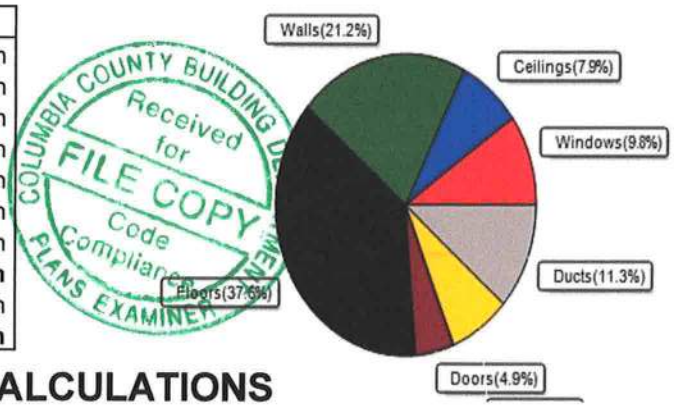
3/25/2020

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)					
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)					
Winter design temperature(TMY3 99%)	30	F	Summer design temperature(TMY3 99%)	94	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	40	F	Summer temperature difference	19	F
Total heating load calculation	**24575**	**Btuh**	**Total cooling load calculation**	**17966**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	122.1	30000	Sensible (SHR = 0.85)	166.3	25500
Heat Pump + Auxiliary(0.0kW)	122.1	30000	Latent	171.0	4500
			Total (Electric Heat Pump)	167.0	30000

WINTER CALCULATIONS

Winter Heating Load (for 1522 sqft)

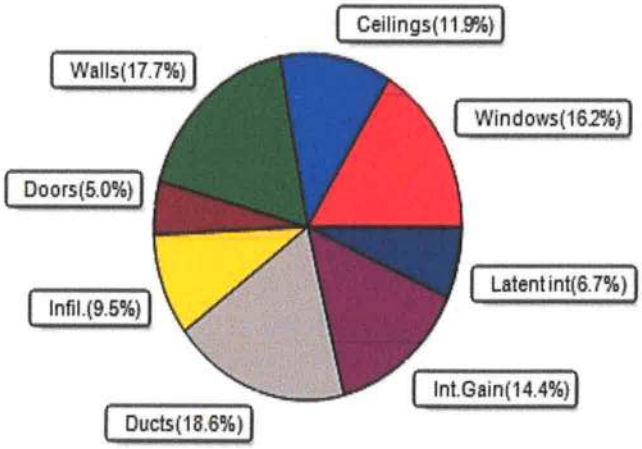
Load component			Load	
Window total	182	sqft	2402	Btuh
Wall total	1501	sqft	5198	Btuh
Door total	68	sqft	1203	Btuh
Ceiling total	1522	sqft	1939	Btuh
Floor total	1522	sqft	9251	Btuh
Infiltration	41	cfm	1804	Btuh
Duct loss			2778	Btuh
Subtotal			**24575**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**24575**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 1522 sqft)

Load component			Load	
Window total	182	sqft	2912	Btuh
Wall total	1501	sqft	3180	Btuh
Door total	68	sqft	902	Btuh
Ceiling total	1522	sqft	2133	Btuh
Floor total			0	Btuh
Infiltration	31	cfm	643	Btuh
Internal gain			2580	Btuh
Duct gain			2984	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Blower Load			0	Btuh
Total sensible gain			**15334**	**Btuh**
Latent gain(ducts)			366	Btuh
Latent gain(infiltration)			1066	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1200	Btuh
Total latent gain			**2632**	**Btuh**
TOTAL HEAT GAIN			**17966**	**Btuh**



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EnergyGauge® System Sizing
PREPARED BY: _____
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