

Red barn

Site ID: **17326**Area: **1,600** ft<sup>2</sup>

Heating: 21,300 BTU/hr Cooling: 11,600 BTU/hr

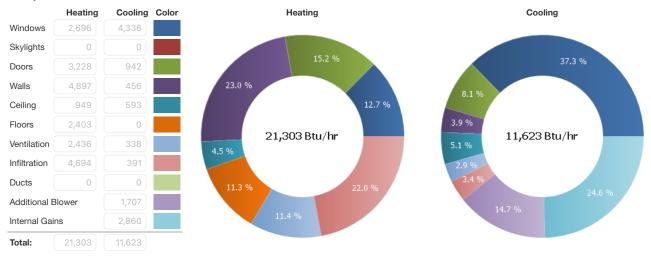
Climate: **Greenfield** Cooling: **11,600** BTU/hr Latent: **1,600** BTU/hr

Values successfully saved.

#### **Site Information**

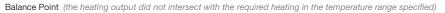
Contractor Name	Ryan Richards	Contractor Company	Brooksbend
Project Name	Red barn	Subdivision	
Address 1		Lot Number	
Address 2		Plan/Model Number	
State/Province	Massachusetts	Builder	
Zip/Postal Code	01351	Year	2023
Default Insulation Level	2x6 super insulated	Weather Location	Greenfield

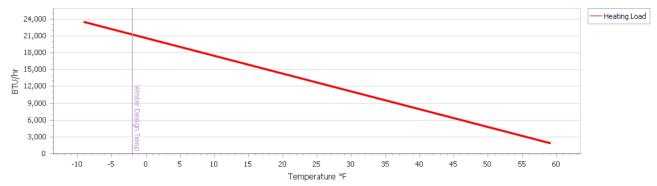
### **Component Loads**



#### **Room Data and Loads**

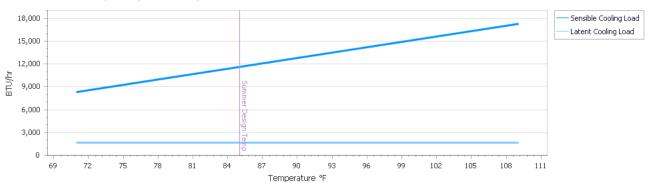
### Heating



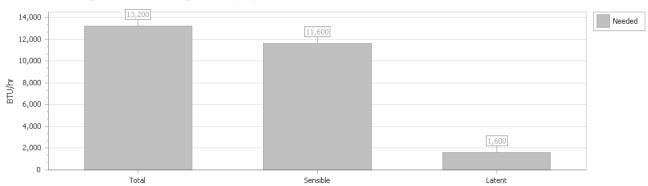


### Cooling





# Required Cooling at Summer Design Temp (85°)



### **HVAC Design and Actual System Data**



	Specified	
Total Heating Load	21,300	0
Sensible Cooling Load	11,600	
Latent Cooling Load	1,600	
Sensible Ratio	0.88	
	Heating	Cooling
Blower Default (CFM)	213	604
Blower Override (CFM)		

### **Building Characteristics**



#### **Window Orientation**

Total Window Square Footage (sqrt)

Total Room (Floor) Square Footage (sqrt)

Total Window to Floor Ratio (%)

20.5 %

#### **Duct Characteristics**



## **Building Data**

	Selected	Override		Selected	Override
Heating 99% Dry Bulb	-2		Additional Blower Load	1707	
Cooling 1% Dry Bulb	85		Internal Shade Coefficient	1.0	
Winter Thermostat Setpoint (°F)	70		Ceiling U-Value	0.026	estimated R-60
Summer Thermostat Setpoint (°F)	75		Floor U-Value	0.031	Frame Floor R-0
Daily Range	Medium	None	Wall U-Value	0.045	ICF R-26 to R-30
Summer Design Grains	27		Basement Wall U-Value	0.060	None
Elevation (ft)	250		Basement Floor U-Value	0.025	None
Latitude (°N)	42		Slab U-Value	0.740	Slab, Horiz‖ R-15
Indoor RH	50		Door U-Value	0.200	0.472
Number of People	2		Window U-Value	0.300	0.200
Appliance/Lighting Load (BTU/hr)	2,400		Window SHGC	0.400	0.300
Internal Gains	2,860	2,860	Duct Insulation	(R-8)	None
Ventilation CFM	31		Duct Leakage	Tight	None
Heating Duct Multiplier	0 %		Heating ACH	0.250	
Cooling Duct Multiplier	0 %		Cooling ACH	0.150	
% Basement Below Grade	75 %	0 %			
ASHRAE 152 Duct area default					
Heated slab on grade					

Disclaimer: This report and any values, estimates and recommendations included herein are only intended to assist the recipient in evaluating design options and should not be used in lieu of professional engineering services. Moreover, the report and its contents are provided "as is" without any warranty or representation regarding quality, accuracy, non-infringement, or usefulness. The HVAC Sizing Tool HVAC industry standard heat gain and heat loss calculations. This product is not ACCA certified.