Kingsburg Build		Wall R-value	35	Zone 1 total	18,374	Btuh	5	kW		
Heating loads		Attic R-value	60							
		C. roof R-value	49	Zone 2 total	12,449	Btuh	4	kW		
Rev.3		Glass U-value	0.2							
December Review 2022		Infiltration ACH	0.3	Zone 3 total	11,043	Btuh	3	kW		
06-Jan-23		Room temp F	72							
New OAT		OAT F	-7.6	Total	41,866	Btuh	12	kW		
29-Jan-23		1st floor height ft	10							
Rev. north wall area		2nd floor height ft	9.5							
10-Mar-23		safety factor	30%							

System	Room	Floor area	Volume	Window area ft2				Q heat windows	Gross wall area ft2				Net Wall area ft2				Q heat walls	Roof		Attic Ceiling		SOG		Soffit		Infiltration		Total Q heat
		ft2	ft3	N	E	S	W	Btuh	N	E	S	W	N	E	S	W	Btuh	ft2	Btuh	ft2	Btuh	ft2	Btuh	ft2	Btuh	cfm	Btuh	Btuh
1	Big	768	9504	122	116	0	62	4,776	384	320	0	320	262	204	0	258	1,647	703	1,142	0		768	960	0		48	4,085	12,610
(Wing)	Loft	168	1260		5		0	80	0	201	0	201	0	196	0	201	903	0		0		0		0		6	542	1,524
	sub total																									54		14,134
																												18,374
2	Mudroom	140	1400	11	0	0	10	334	130	0	0	70	119	0	0	60	407	0		0	0	140	175	0	0	7	602	1,518
(1st floor barn)	Powder	35	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0					35	44		0	2	150	194
	Laundry	120	1200	0	0	5	0	80			120	130	0	0	115	130	557	0		0		120	150	0	0	6	516	1,303
	Ensuite	66	660			5		80			60		0	0	55	0	125					66	83	0	0	3	284	571
	Primary BR	342	3420	0	26	12	0	605	0	190	180	0	0	164	168	0	755					342	428	0	0	17	1,470	3,258
	Hallway	140	1400	0	60		60	1,910	0	70		70	0	10	0	10	45					140	175		0	7	602	2,733
	sub total																									42		9,576
	with s.f.																											12,449
3	Gym	240	2280	71	0	0	0	1,130	209	0	0	0	138	0	0	0	314	0	0	240	318	0		210	478	11	980	3,220
(2nd floor barn)	Guest	180	1710	0	0	20	0	318	0	0	142.5	104.5	0	0	122.5	104.5	516	0	0	180	239			0	0	9	735	1,808
	Bath	60	570			10		159			85		0	0	75	0	171	0	0	60	80				0	3	245	654
	Office	200	1900		26	12		605		180.5	114		0	154.5	102	0	583	0	0	200	265				0	10	817	2,270
	Hall	100	950					0					0	0	0	0	0	0	0	100	133				0	5	408	541
	sub total																									37		8,494
	with s.f.																											11,043
																										133		
	Grand total																											41,866
	Total component							13,101									7,830		1,485		1,345		2,618		621		14,866	41,866
								31%									19%		4%		3%		6%		1%		36%	

Window area	622
Wall area	3132.5