

Project Information

For: Basement Floor - North, Lennar Homes

Design Information

	Htg	Clg		Infiltration
Outside db (°F)	23	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Semi-tight
Design TD (°F)	47	17	Fireplaces	1 (Semi-tight)
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	41	44		

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	353 cfm
Air flow factor	0.016 cfm/Btuh
Static pressure	0.70 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	353 cfm
Air flow factor	0.046 cfm/Btuh
Static pressure	0.70 in H2O
Load sensible heat ratio	0.90

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bunk Room	121	3012	1026	49	47
Guest Room	143	1845	766	30	35
Family Room	280	5332	2290	86	106
Game Room	280	8705	2907	141	134
Bath	54	1795	399	29	18
Bunk Closet	26	1166	259	19	12
Hall/Closet	232	0	0	0	0

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

First Floor	1136	21855	7648	353	353
Other equip loads		0	0		
Equip. @ 0.97 RSM			7395		
Latent cooling			897		
TOTALS	1136	21855	8292	353	353

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Duct System Summary

First Floor

Romanoff Heating and Cooling

Job:

Date:

By:

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	Heating	Cooling
External static pressure	<i>0.70</i> in H2O	<i>0.70</i> in H2O
Pressure losses	<i>0.19</i> in H2O	<i>0.19</i> in H2O
Available static pressure	<i>0.51</i> in H2O	<i>0.51</i> in H2O
Supply / return available pressure	0.388 / <i>0.122</i> in H2O	0.388 / <i>0.122</i> in H2O
Lowest friction rate	<i>0.065</i> in/100ft	<i>0.065</i> in/100ft
Actual air flow	353 cfm	353 cfm
Total effective length (TEL)		264 ft

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
Bunk Room	<i>h</i> 3012	58	57	0.065	6.0	0x0	VIFx	26.0	175.0	
Guest Room	<i>c</i> 766	36	42	0.065	6.0	0x0	VIFx	26.0	175.0	
Family Room	<i>c</i> 2290	103	127	0.065	8.0	0x0	VIFx	26.0	175.0	
Game Room-A	<i>h</i> 4352	84	81	0.065	7.0	0x0	VIFx	26.0	175.0	
Game Room	<i>h</i> 4352	84	81	0.065	7.0	0x0	VIFx	26.0	175.0	
Bath	<i>h</i> 1795	35	22	0.065	5.0	0x0	VIFx	26.0	175.0	
Bunk Closet	<i>h</i> 1166	23	14	0.065	5.0	0x0	VIFx	26.0	175.0	
Hall/Closet	<i>c</i> 0	0	0	0.065	0	0x0	VIFx	26.0	175.0	

Bold/italic values have been manually overridden

