BUILDING LEAKAGE TEST

Infrared Diagnostic LLC
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Date of Test: 5/12/09
Test File: TomHarrisonBD

Technician: Flemming Lund

Customer: Tom Harrison
47 Charlotte Rd.
Newton, MA
Phone

Building Address: 47 Charlotte Rd.
Newton, MA

Test Results

1. Airflow at 50 Pascals: (50 Pa = 0.2 w.c.)	2847 CFM (+/- 0.4 %) 7.91 ACH 1.05 CFM per ft2 floor area
2. Leakage Areas:	309.4 in2 (+/- 1.2 %) Canadian EqLA @ 10 Pa 169.4 in2 (+/- 2.1 %) LBL ELA @ 4 Pa
3. Minneapolis Leakage Ratio:	0.00 CFM50 per ft2 surface area
4. Building Leakage Curve:	Flow Coefficient (C) = 253.7 (+/- 3.4 %) Exponent (n) = 0.618 (+/- 0.009) Correlation Coefficient = 0.99931
5. Test Settings:	Test Standard: = CGSB Test Mode: = Depressurization Equipment = Model 3 Minneapolis Blower Door, S/N 12926

Infiltration Estimates

1. Estimated Average Annual Infiltration Rate:		233.4 CFM 0.65 ACH 58.3 CFM per person
2. Estimated Design Infiltration Rate:	Winter:	315.0 CFM 0.87 ACH
	Summer:	141.8 CFM 0.39 ACH
3. Recommended Whole Building Mechanical Ventilation Rate: (based on ASHRAE 62.2)		0.0 CFM

Cost Estimates

1. Estimated Cost of Air Leakage for Heating: $ 340 per year heating

2. Estimated Cost of Air Leakage for Cooling:

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Building Conditions

Inside Temperature:	70 deg F	Heating Fuel:	Gas
Outside Temperature:	55 deg F	Heating Fuel Cost:	$1.64/ccf
# of Stories	3.0	Heating Efficiency:	80.00
		Heating Degree Days:	5641
Wind Shield:	H	Cooling Fuel Cost:	
# of Occupants	4.0	Cooling SEER:	
		Cooling Degree Days:	275
# of Bedrooms:	3.0		
Volume:	21600 ft3	Ventilation Weather Factor:	1.07
Surface Area:		Energy Climate Factor:	18.0
Floor Area:	2700 ft2		
Design Winter Wind Speed:	18.0 mph	Design Winter Temp Diff:	61 deg F
Design Summer Wind Speed:	7.0 mph	Design Summer Temp Diff:	13 deg F

Comments

The energy saving in this report is the maximum saving that would be possible with typical improvments. The actural energy saving that most home owners obtain is often 50 to 75 % of the figure in this report. This is because some air leaks and air infiltration from fireplaces, heating system flue pipe and other air infiltration that is not visible are included in the maximum energy saving amount.

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Data Points:

Nominal Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow	Temperature Adjusted Flow	% Error	Fan Configuration	Baseline Std Dev (Pa)
-2.0	n/a					+/- 0.07
-51.7	34.8	2864	2823	-0.7	Open	
-46.2	30.8	2700	2661	0.6	Open	
-41.9	27.2	2537	2501	0.8	Open	
-36.9	169.2	2321	2287	0.1	Ring A	
-31.2	134.8	2077	2047	-0.1	Ring A	
-27.6	110.5	1885	1858	-1.6	Ring A	
-21.3	82.0	1629	1606	1.0	Ring A	
-17.0	58.3	1380	1360	-0.1	Ring A	
-1.6	n/a					+/- 0.19