



BUILDING LEAKAGE TEST

Closer Look Inspections
Construction, Environmental & Energy Consultants
34090 Roberts Rd.
Eastlake, OH 44095
Phone: 440-946-7191

Date of Test: 1-04-2005
Test File: C.L.I. Manual Test

Technician: Al Tibbs, CIAQT

Customer: Tom Homeowner
2345 First Ave.
Cleveland, OH 44115
Phone 216-566-600X
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Building Address: 2345 First Ave.
Cleveland, OH 44115

Test Results

- Airflow at 50 Pascals: 3673 CFM (+/- 0.3 %)
(50 Pa = 0.2 w.c.) 10.02 ACH
1.31 CFM per ft² floor area
- Leakage Areas: 383.3 in² (+/- 1.4 %) Canadian EqLA @ 10 Pa
205.1 in² (+/- 2.2 %) LBL ELA @ 4 Pa
- Minneapolis Leakage Ratio: 1.22 CFM₅₀ per ft² surface area
- Building Leakage Curve: Flow Coefficient (C) = 296.5 (+/- 3.5 %)
Exponent (n) = 0.643 (+/- 0.009)
Correlation Coefficient = 0.99957
- Test Settings: Test Standard: = CGSB
Test Mode: = Depressurization
Equipment = Model 3 Minneapolis Blower Door

Infiltration Estimates

- Estimated Average Annual Infiltration Rate: 179.0 CFM
0.49 ACH
35.8 CFM per person
(using bedrooms + 1)
- Estimated Design Infiltration Rate: Winter: 298.1 CFM
0.81 ACH
Summer: 148.1 CFM
0.40 ACH
- Recommended Whole Building Mechanical Ventilation Rate: (based on ASHRAE 62.2-2003) 4.0 CFM

Cost Estimates

- Estimated Cost of Air Leakage for Heating: \$ 193 per year heating
- Estimated Cost of Air Leakage for Cooling: \$ 10 per year cooling

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Building Conditions

Inside Temperature:	70 deg F	Heating Fuel:	Gas
Outside Temperature:	20 deg F	Heating Fuel Cost:	\$0.80/ccf
# of Stories	1.0	Heating Efficiency:	82.00
		Heating Degree Days:	6201
Wind Shield:	M	Cooling Fuel Cost:	\$0.080/kwh
# of Occupants	4.0	Cooling SEER:	9.5
		Cooling Degree Days:	234
# of Bedrooms:	4.0		
Volume:	22000 ft3	Ventilation Weather Factor:	0.96
Surface Area:	3000 ft2	Energy Climate Factor:	18.0
Floor Area:	2800 ft2		
Design Winter Wind Speed:	13.0 mph	Design Winter Temp Diff:	65 deg F
Design Summer Wind Speed:	7.0 mph	Design Summer Temp Diff:	13 deg F

Comments

Owner complains of condensation on windows in winter.

Crawlspace is wet.

2 smokers in the house.

Downspouts dump directly at the base of the house.

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Data Points: Data Entered Manually

Nominal Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow	Temperature Adjusted Flow	% Error	Fan Configuration	Baseline Std Dev (Pa)
0.0	n/a					+/- 0.00
-55.0	73.0	4091	3893	-0.3	Open	
-50.0	65.0	3862	3675	0.1	Open	
-44.0	56.0	3588	3414	0.9	Open	
-38.0	45.0	3220	3064	-0.5	Open	
-30.0	33.0	2762	2628	-0.6	Open	
-20.0	149.0	2149	2045	0.4	Ring A	