



## BUILDING LEAKAGE TEST

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Date of Test: 11/06/14

Test File: 621 Unit 105\_06NOVEMBER14

Customer: SWMHP  
2401 Broadway Ave  
Slayton, MN 56172  
Phone: 507-836-1613

Technician: Katherine Teiken

Project Number:

Building Address: Building 621  
Unit 105  
St. Peter, MN

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### Test Results

- Airflow at 50 Pascals:  
(50 Pa = 0.2 w.c.)  
534 CFM50 ( +/- 1.2 %)  
2.46 ACH50  
0.3474 CFM50/ft<sup>2</sup> floor area  
0.1279 CFM50/ft<sup>2</sup> surface area
  - Leakage Areas:  
56.7 in<sup>2</sup> ( +/- 3.0 %) Canadian EqLA @ 10 Pa  
30.7 in<sup>2</sup> ( +/- 5.2 %) LBL ELA @ 4 Pa
  - Building Leakage Curve:  
Flow Coefficient (C) = 44.9 ( +/- 8.4 %)  
Exponent (n) = 0.633 ( +/- 0.024 )  
Correlation Coefficient = 0.99586
  - Test Settings:  
Test Standard: CGSB  
Test Mode: Depressurization
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### Infiltration Estimates

- Estimated Average Annual Infiltration Rate:  
34.9 CFM  
0.16 ACH
  - Estimated Design Infiltration Rate:  
Winter: 50.0 CFM  
0.23 ACH  
Summer: 22.9 CFM  
0.11 ACH
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### Cost Estimates

- Estimated Cost of Air Leakage for Heating: \$ 40 per year heating
- Estimated Cost of Air Leakage for Cooling: \$ 2 per year cooling

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**Building Information**

Volume	<b>13053</b>
Surface Area	<b>4177</b>
Floor Area	<b>1538</b>
Height	<b>16</b>
# of Bedrooms	<b>2</b>
# of Occupants	
Year of Construction	<b>2014</b>
Wind Shield	<b>H</b>

**Location Climate Information**

Ventilation Weather Factor	<b>1.00</b>
Energy Climate Factor	<b>16.00</b>
Heating Degree Days	<b>7809</b>
Cooling Degree Days	<b>380</b>
Design Winter Wind Speed	<b>9.0 mph</b>
Design Summer Wind Speed	<b>7.0 mph</b>
Design Winter Temp Diff	<b>81 deg F</b>
Design Summer Temp Diff	<b>16 deg F</b>

**Heating and Cooling Cost and Efficiency Information**

Heating Fuel	<b>Gas</b>
Heating Fuel Cost	<b>\$0.90/ccf</b>
Heating Efficiency %	<b>95.00</b>
Cooling Fuel Cost	<b>\$0.090/kwh</b>
Cooling SEER	<b>14.5</b>

**Equipment Information**

<b>Type</b>	<b>Manufacturer</b>	<b>Model</b>	<b>Serial Number</b>	<b>Custom Calibration Date</b>
<b>Fan</b>	Energy Conservatory	Model 3 (110V)		-
<b>Micromanometer</b>	Energy Conservatory	DG700	37299-7	6/17/2013

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**Depressurization Test:****Environmental Data**

<b>Indoor Temperature (°F)</b>	<b>Outdoor Temperature (°F)</b>
68.0	38.0

**Data Points**

<b>Nominal Building Pressure (Pa)</b>	<b>Baseline Adjusted Building Pressure (Pa)</b>	<b>Fan Pressure (Pa)</b>	<b>Nominal Flow (cfm)</b>	<b>Adjusted Flow (cfm)</b>	<b>% Error</b>	<b>Fan Configuration</b>
-3.4	n/a	n/a				
-52.1	-48.6	83.3	543	527	0.5	Ring B
-48.8	-45.2	77.6	524	509	1.5	Ring B
-42.6	-39.1	60.1	462	448	-2.0	Ring B
-36.7	-33.2	50.9	425	413	0.2	Ring B
-32.3	-28.8	41.4	384	373	-1.2	Ring B
-27.9	-24.3	31.4	335	325	-4.1	Ring B
-23.2	-19.7	190.2	316	307	3.5	Ring C
-19.1	-15.6	138.4	268	261	1.8	Ring C
-3.7	n/a	n/a				

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**Deviations from Standard CGSB - Test Parameters****None**

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**Comments**

Interior multi family unit

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