



## BUILDING LEAKAGE TEST

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Date of Test: 11/06/14

Test File: 625 Unit 110\_06NOVEMBER14

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

Technician: Katherine Teiken

Project Number:

Building Address: Building 625  
Unit 110  
St. Peter, MN

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### Test Results

- Airflow at 50 Pascals:  
(50 Pa = 0.2 w.c.)  
662 CFM50 ( +/- 1.5 %)  
3.04 ACH50  
0.4302 CFM50/ft<sup>2</sup> floor area  
0.1584 CFM50/ft<sup>2</sup> surface area
  - Leakage Areas:  
67.2 in<sup>2</sup> ( +/- 7.2 %) Canadian EqLA @ 10 Pa  
35.4 in<sup>2</sup> ( +/- 11.0 %) LBL ELA @ 4 Pa
  - Building Leakage Curve:  
Flow Coefficient (C) = 50.0 ( +/- 16.7 %)  
Exponent (n) = 0.660 ( +/- 0.042 )  
Correlation Coefficient = 0.98833
  - Test Settings:  
Test Standard: CGSB  
Test Mode: Depressurization
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### Infiltration Estimates

- Estimated Average Annual Infiltration Rate:  
40.4 CFM  
0.19 ACH
  - Estimated Design Infiltration Rate:  
Winter: 57.8 CFM  
0.27 ACH  
Summer: 26.4 CFM  
0.12 ACH
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### Cost Estimates

- Estimated Cost of Air Leakage for Heating: \$ 50 per year heating
- Estimated Cost of Air Leakage for Cooling: \$ 3 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**

Indoor Temperature (°F)	Outdoor Temperature (°F)
71.0	43.0

**Data Points**

Nominal Building Pressure (Pa)	Baseline Adjusted Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow (cfm)	Adjusted Flow (cfm)	% Error	Fan Configuration
-8.1	n/a	n/a				
-86.8	-79.3	238.5	914	890	-0.8	Ring B
-75.3	-67.8	203.0	844	821	1.6	Ring B
-65.8	-58.2	171.4	776	755	3.3	Ring B
-59.3	-51.8	136.5	693	675	-0.3	Ring B
-50.8	-43.2	108.6	619	602	0.2	Ring B
-48.6	-41.0	83.0	542	527	-9.2	Ring B
-36.4	-28.8	59.0	457	445	-3.1	Ring B
-25.1	-17.5	38.6	371	361	8.9	Ring B
-7.1	n/a	n/a				

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**Deviations from Standard CGSB - Test Parameters**

- Correlation coefficient (0.988) outside of acceptable limits.
  - % Error for one or more of the data test points is greater than 6%.
  - One or more of the test data points was taken at a building pressure that differed by more than 2.5 Pascals from the target pressure.
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**Comments**

Interior multi family unit

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