Home Performance Report

for:
Sample Client
123 Rockstar Avenue
Chicago, IL 60601

Customize everything
to look as sexy as you want!
Or, keep the boring old
Arial font- it's your choice...

August 13, 2012

Sample Client
123 Rockstar Ave.
Chicago, IL 60601

OPPORTUNITIES FOR IMPROVEMENT

Your home performance analysis was performed to the national standards of BPI and RESNET, and all recommendations are based on the performance testing and the experience of the building specialists. Our company does not guarantee the work of any other contractor, even if referred by us.

SUMMARY:

The good news is: your home has some very clear opportunities! Your family can easily become more comfortable and will be breathing cleaner air in no time.

(Here's what the opportunity for improvement is, why you want to fix it, and how best to do so. Order the recommendations by priority.)

Attic Floor Airsealing and Insulation:

There's a significant amount of heat flow between the home and the attic at present, through the insulation and through air leakage at penetrations. The attic is the first place we advise starting, because since hot air rises, if you can stop it from leaving the home, you also put a leash on the home's intake of new air to replace it (so the lower floors get more comfortable as well).
Your home needs an **airtight plane at the attic floor,** by **air sealing** with spray foam/caulk and other airtight materials at all gaps, wall top plates, holes, and penetrations around pipes/electrical/ducts (see the *Infrared Report* for images of these). THIS MEASURE MAY BE ELIGIBLE FOR UTILITY REBATES AND THE FEDERAL EE TAX CREDIT. FOR MORE INFO, VISIT OUR WEBSITE.
Approx. Cost: $3200
SP: 10-20

Natural Gas Leaks:

SAFETY ISSUE: Natural gas leaks were detected with an electronic gas sniffer and soap bubbles, tagged and photographed. This is a fire hazard and an air quality issue, in addition to being a simple waste of fuel. Have a plumber or handyman seal these with joint compound, or replace valves or joints.

Energy Efficient Lighting:

Some of your lights have Compact Fluorescent bulbs, but many do not. CFLs, or even halogen (hotter) or LEDs (more expensive) would save considerably on electricity for the building.

Carbon Monoxide Detectors:

SAFETY ISSUE: Make sure you have CO detectors installed and maintained near the sleeping areas, HVAC equipment, and the kitchen, and ensure they're replaced every 3-5 years.

July 1, 2014

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PHOTO REPORT

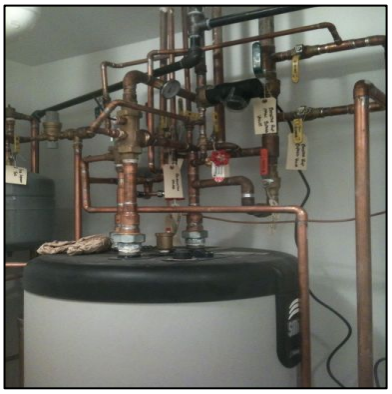

Crawlspace under the carpet- major issue


Your HVAC return air is coming through the stairs

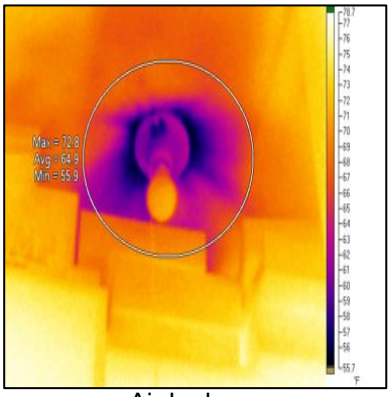

Major moisture damage over water heaters


Water heater shows signs of flame roll-out

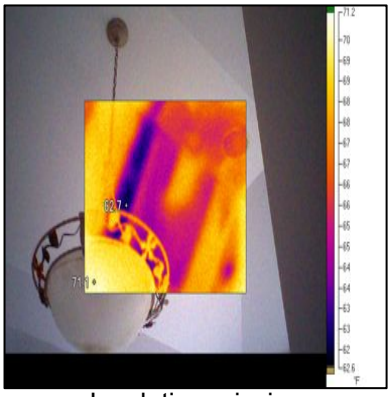

Insulation issue


Missing pipe insulation


Exposed bath fan



Air leakage


Insulation missing

September 12, 2015

Sample Client
123 Rockstar Avenue
Chicago, IL 60601

YOU choose how to show your client the performance data

AIR LEAKAGE ANALYSIS

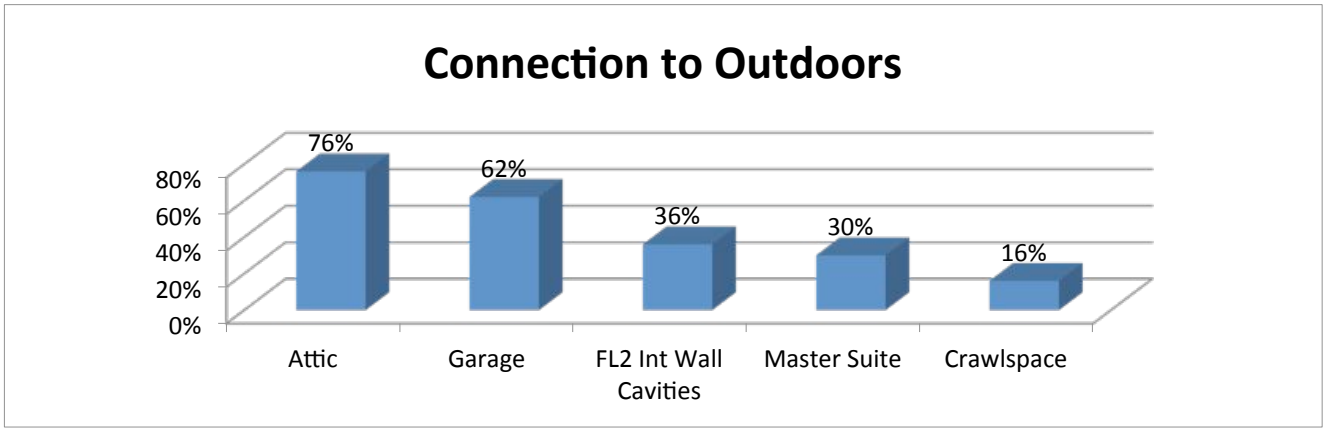
BLOWER DOOR TEST:

- *Air Leakage Tested at Present:*
  4285 CFM@50 Pascals Fan Open
- *Estimated Cumulative Size of Leakages:*
  428.50 in^2 **3.0 ft^2**
- *Present Air Changes per Hour During Testing:*
  8.9 Air Changes per Hour at 50 Pascals (ACH50)
- *Highest Air Leakage Allowed by Int'l Energy Code if your home was built today:*
  1449 CFM@50 Pascals **3.0 ACH50**
- *Whole Building Ventilation Needed Beyond Infiltration (ASHRAE 62.2-2013)*
  Your home currently does not require ventilation.

Based on our diagnostics, we recommend making
the home up to **66** **% tighter**

ZONAL PRESSURE TEST:

Parts of your home were partitioned off, and the resulting Zonal Pressure Proportions tell us how much opportunity for improvement there is for air sealing:



All areas should ideally show an airway connection of either 0% or 100% - completely inside or outside

September 12, 2015

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Keep the focus on PERFORMANCE, not on energy efficiency!

HEATING DELIVERY

AIRFLOW PERFORMANCE:

Airflow is critical for the heating equipment to work correctly, and is often overlooked.

Tested total airflow:	**960 cfm**	*Ideal airflow between:*	**1190 cfm** – **2083 cfm**

PRESSURE PERFORMANCE:

External Static Pressure is like blood pressure- too much, and it makes the heart of the system (in this case, the central blower fan) work way too hard.

Return ESP:	0.45 i.w.c.	*Supply ESP:*	0.58 i.w.c.
Total ESP:	**1.03 i.w.c.**	*Ideal Max TESP:*	**0.50 i.w.c.**

EQUIPMENT HEATING DELIVERY:

Your heating system ideally heats your home as well as it says on the label, and you deserve to know if you're getting what you paid for from your equipment.

Tested Heating Capacity:	**67,392 Btuh**	*Ideal Capacity:*	**90,000 Btuh**

HEATING DELIVERED TO ROOMS:

actually feel in the rooms throughout your home. Here's how they affect the overall performance.

Heated Temperature Before Ducts:	135ºF	*After Ducts:*	115ºF

Heating loss from duct heat bleed: 20,736 Btuh

Your heating system performed **51.84%** *as well as designed.*

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Crazy amounts of automation allow you to calculate ADVANCED performance metrics

COOLING DELIVERY

AIRFLOW PERFORMANCE:

Airflow is critical for the A/C equipment to work correctly, and is often overlooked.

Tested total airflow:	**1100**	*Ideal airflow:*	**1200**

PRESSURE PERFORMANCE:

External Static Pressure is like blood pressure- too much, and it makes the heart of the system (in this case, the central blower fan) work way too hard.

Return ESP:	0.49 i.w.c.	*Supply ESP:*	0.66 i.w.c.
Total ESP:	**1.15 i.w.c.**	*Ideal Max ESP:*	**0.50 i.w.c.**

EQUIPMENT COOLING DELIVERY:

Your A/C ideally cools and dries your home as well as the label promises, and you deserve to know if you're getting what you paid for from your equipment.

Tested Cooling Capacity:	**2.1 Tons**	*Ideal Capacity:*	**3.0 Tons**

COOLING DELIVERED TO ROOMS:

Of course, the ductwork has a major impact on the cooling power you actually feel in the rooms throughout your home; here's how ducts affect the overall performance.

A/C Temperature Before Ducts:	58ºF	*After Ducts:*	60ºF

Cooling loss from duct heat bleed: 0.3 Tons

Your air conditioning system performed **60.23%** *as well as designed.*

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All data is modular, so you can work to whatever standard you choose

COMBUSTION ANALYSIS & SAFETY

WORST-CASE DEPRESSURIZATION TEST:

*A **'worst-case'** scenario was created for your gas combustion appliances (furnace, boiler, water heater) with the home's own exhaust systems and air handler, and the results were compared with BPI standards for safety.*

- *Combustion Appliance Zone (CAZ) Baseline Pressure, and Worst Case Pressure*
  -1 ***Pascals*** **-9** ***Pascals***

- *Worst-Case Depressurization Test Results:*
  The main combustion appliance zone FAILED testing.
  See the Opportunities For Improvement report for more about this important safety issue.

CARBON MONOXIDE AND FLUE GAS SPILLAGE:

- *Unsafe levels of Carbon Monoxide (CO) were emitted by the following:*
  Water Heater **104** ppm
  Furnace **35** ppm

- **Spillage of combustion gas was detected during testing.**
  See the Opportunities For Improvement report for on more about this important safety issue.

COOKING SAFETY:

- SAFETY ISSUE: your kitchen's cooking range does NOT appear to be exhausted to outdoors. Have exhaust ventilation installed.
- Steady state CO emissions from the oven exceeded 100ppm.
  See the Opportunities For Improvement report for more about this important safety issue

GAS LEAKS:

- Combustible gas leaks were detected and tagged. See the Opportunities for Improvement report for more on this safety issue.

COMBUSTION ANALYSIS:

Appliance	*CO emission*	*Spillage*	*Draft Pressure*	*Steady State Temp*	*Oxygen*
Water Heater	104 ppm	fail	0.5 Pa	513ºF	6.5%
Furnace	35 ppm	pass	-4.2 Pa	297ºF	9.0%
WH @ natural		pass	-8.2 Pa		

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Simplified energy use calc gives you what you NEED without boring you to death

ENERGY USE ANALYSIS

HEATING UTILITY:	North Shore	**ELECTRIC CO:**	ComEd
FUEL TYPE:	natural gas	**ANNUAL ELECTRIC USAGE:**	5890
ANNUAL GAS COST:	$2,400.00	**ANNUAL ELECTRICITY COST:**	$1,488.00

SUMMER SAMPLES:	DATE	**BILL DAYS**	**UNITS**	**UNITS/DAY**
	Jul-15	29	27.62	0.95
	Aug-15	30	25.88	0.86
	AVG BASE LOAD/DAY			**0.91**
			AVG BASE LOAD MMBTU/DAY	**0.09**

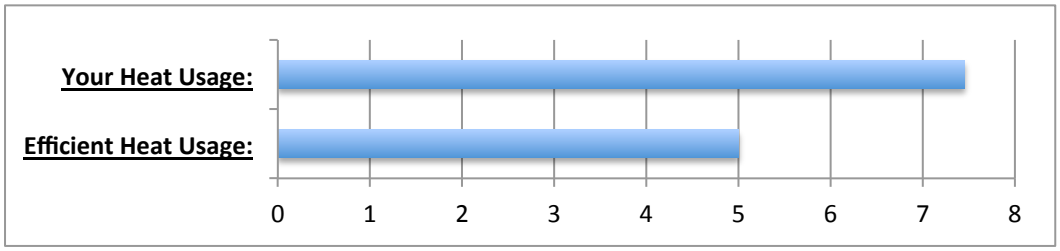
**Base Load consists of hot water, cooking, and clothes drying*

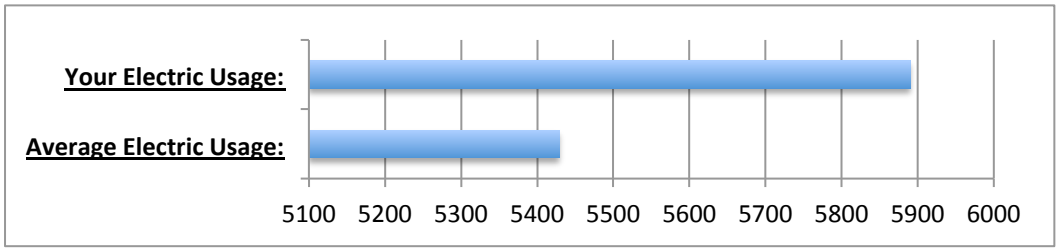
WINTER SAMPLES	DATE	**BILL DAYS**	**UNITS**	**UNITS/DAY**
	Jan-15	30	432.09	14.40
	Feb-15	29	387.91	13.38
	Mar-15	31	311.99	10.06
	SUM	90	1131.99	
	SPACE HEAT USAGE		**1050.31**	**11.67**

SPACE HEAT USAGE	1050.31
SQUARE FEET	3428
HEATING DEGREE DAYS	4112
HEAT USE (Btus/ft²/hdd)	**7.45**

BASE LOAD AVG.: .07-.1 BTU/DAY

HEAT USE AVG.: 5 = EFFICIENT
10 = INEFFICIENT
15 = VERY INEFFICIENT





BUILDING PERFORMANCE WORKSHOP a division of Green Dream Group

Your Logo Here

WARNINGS

Moisture:	
CAZ:	FAIL
CO:	FAIL
Spillage:	FAIL
Draft:	FAIL
Gas Leaks:	FAIL

*ALL GRAY BOXES TO BE FILLED

Date:	9/12/15						
Client Name:	Sample Client					Foundation Type:	Bsmt-Fin
Street Address:	123 Rockstar Avenue					Insulation:	R-11 batt
City, State ZIP:	Chicago, IL 60601	LBL Zone:	Zone 3			Wall Type:	stick/siding
Expectations:	Comfort, priority list for improvement					Insulation:	R-11 batt sketchy
Renovations:	Gut rehab 2004					Ceiling Type:	Attic
Temp Outside:	81	Year Built:	1930	Floor Area:	3428	Insulation:	R-30 blown
Temp In:	70	Moved In:	2006	Volume:	28986	Ventilation:	eave + ridge
%RH In:	48	wsf:	0.59	Shielding:	Shielded		
		Bedrooms:	4	Facing:	S		
Wind:	0-5	People:	3	Stories:	2.5		
Weather:	Sunny	Height:	22	Target cfm:	1449.3		

FEATURES

RECOMMENDATIONS:

airseal attic floor
sump pump airtight
deactivate attic fan
water heater clean/tune
OR power vent replace
garage airseal (ceiling cavities)
HVAC balancing

COMBUSTION

APPLIANCE	CO ppm	Spillage pass/fail	Draft Pa	Temp ºF	Oxygen %
Water Heater	104	fail	0.5	513	7%
Furnace	35	pass	-4.2	297	9%
WH @ natural		pass	-8.2		

Draft Limit:	-0.725	Gas Oven:	yes
		Oven CO ppm:	203
		Exhausted to outdoors?	no
		Gas Leaks?	yes

WORST-CASE TEST

Baseline	-1
Worst Case	-9
Adjusted:	-8
Low Limit:	-5

ALL FIELDS are customizable, movable, and modular!

FAN FLOWS

Master Bath	42	CFM
FL1 Powder	18	CFM
BSMT Bath	26	CFM
Kitchen	99	CFM

AIR LEAKAGE TEST

Blower Door:

CFM@50Pa:	4285	Ring:	Fan Open
CRF:		Pa Reached:	

Duct Leakage:

Total CFM@25Pa:	358	To Outside:	102
Total CFM@25Pa:	185	To Outside:	80

Duct PR PAN Criteria: is Leaky

ZONAL PR w/ Blower Door

Zones:		
w/r/t outside:	50	Pa
Attic	38	Pa
Garage	31	Pa
FL2 Int Wall Cavities	18	Pa
Master Suite	15	Pa
Crawlspace	8	Pa
		Pa

APPLIANCES

Type/Fuel/Make/Model:	kBtuh IN	kBtuh OUT:	Stated Eff:	Year:
BSMT Furnace American 450CYES90	100	90	90	2004
50 Gal Water Heater	41		0.55	2004
A/C R-22 American 450ACEU36		3 TON	12	2004