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Extreme Green Retrofit Shows Preserving History While Being Green is Possible

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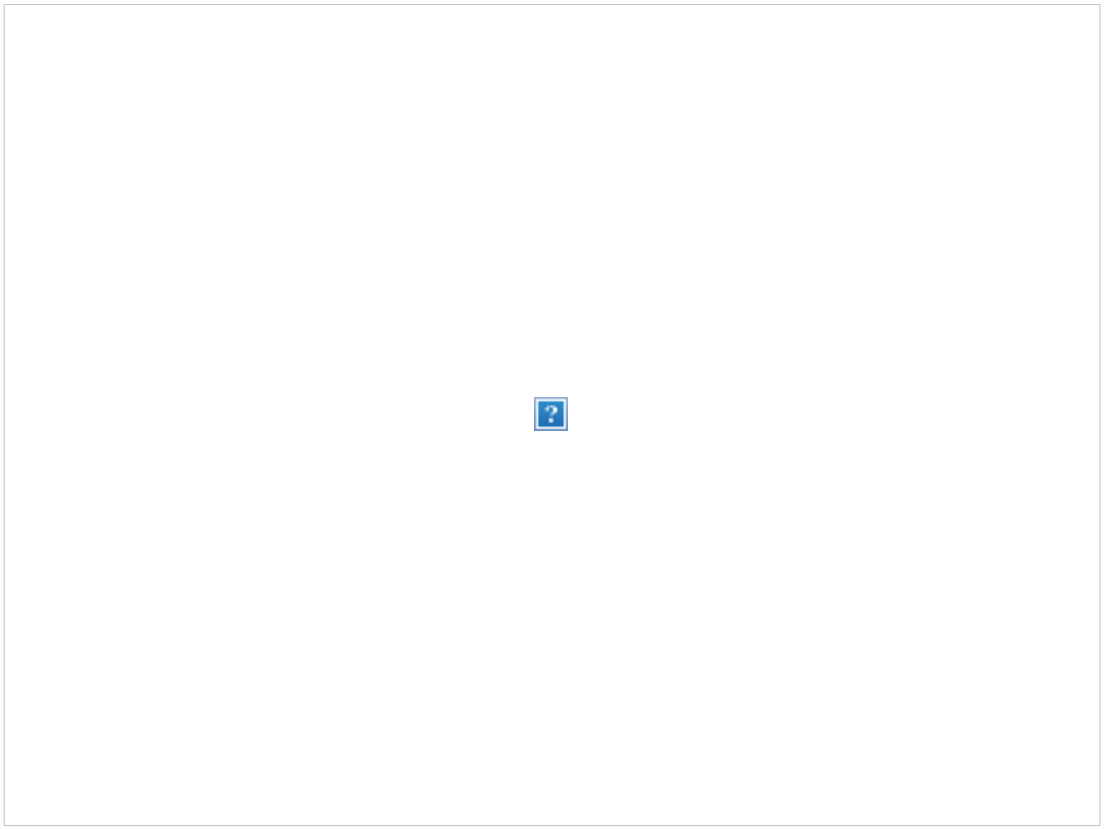


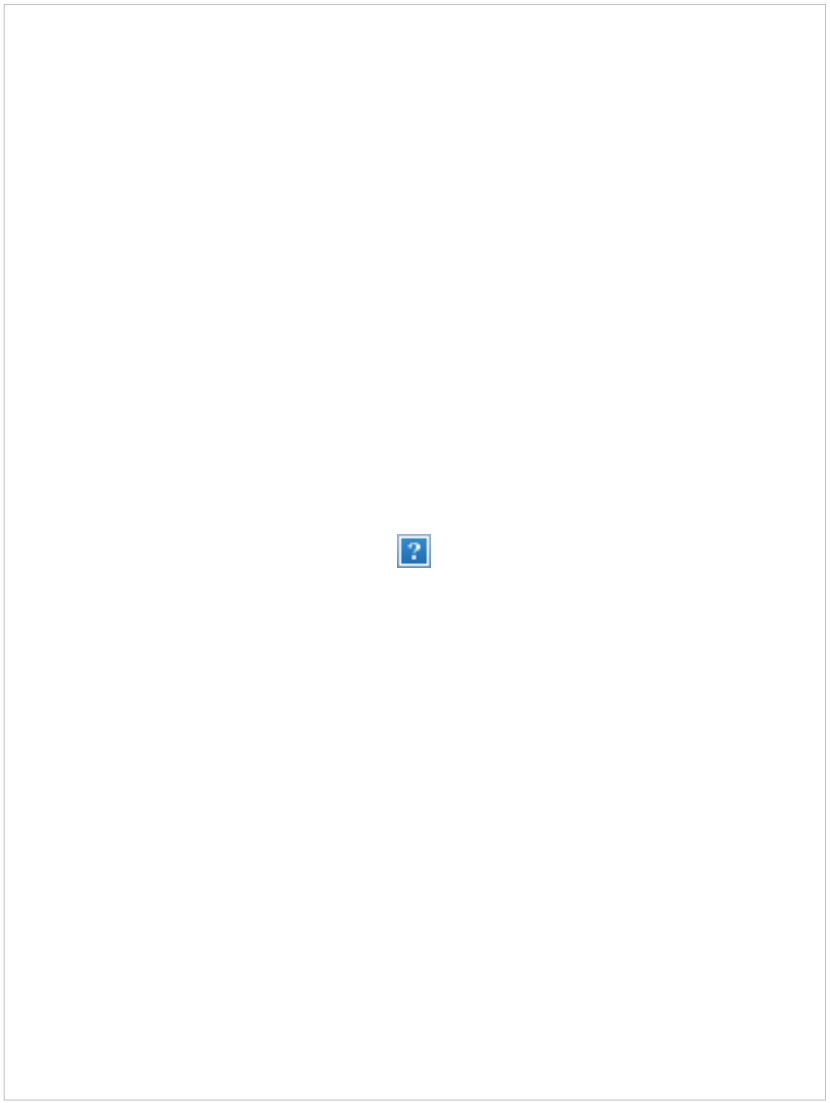
For Terrell Wong (architect and owner of Stone's Throw Design) and her husband, their 90-year old Toronto home was costing them way too much money – $12,000 every year just for utilities, to be exact. They wanted to renovate the house that had been in the family for 35 years, but were committed to employing green home plans as much as possible. Their journey proves that while working with a historic home can pose some challenges, the rewards are great.

Let's look at some of the features and green design techniques they used to lower utility bills will maintaining the historic nature of the house:

- Architectural elements that were special to the family – such as the exterior façade, the hard wood flooring and stairs, and so on – were maintained.
- The couple spent $50,000 on an insulation upgrade, window retrofit, and ventilation system overhaul to help make the home more efficient.
    - The spray foam has a total wall R-value of 35 and was added from the foundation to the underside of the eaves.

    - Windows were upgraded to R-7 German made Internorm Varion windows that are triple-glazed.

- Stopping air leaks which had previously resulted in 11 air changes per hour (which is quite high, and energy-costly), meant that there were no vents, pipes, ducts, wires, or outlets in the exterior walls.
- Existing heating systems were retrofitted and supplemented with radiant in-floor heating in the basement and master bathroom.
- A 94% efficient UltimateAir energy recovery ventilator was installed to capture waste heat.
- Passive solar hot water tanks were installed.



In the end, the couple accomplished much of what they'd hoped for, including dropping air exchanges from 11 per hour to 1.6 per hour. Their utilities bills are now $10,000 lower per year (a total of 75% lower than they were originally), with an average annual energy consumption of less than 50 kWh per square meter. Find out more about the project at RosedaleHouse.ca.

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