



by Monte Paulson, Red Door Energy Advisors

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Owners of heritage and character homes sometimes feel 'trapped' by high heating bills. We don't want to remove old windows or pump spray foam into century-old wood frame walls, but we're not quite sure how to make our homes more comfortable and energy efficient while maintaining heritage value.

Fortunately, Vancouver homeowners will be steered toward professional advice by the new Vancouver Building By-Law (VBBL), which requires that any existing home renovation with a construction value of \$5,000 or more include a home energy assessment. Such assessments, sometimes described as energy audits, include a site visit by a Certified Energy Advisor, a blower-door test, and a follow-up report that includes a preliminary EnerGuide Rating.

The energy assessment is just one of several new requirements introduced in the 2014 VBBL, which takes effect in March. Implementation procedures have not yet been published, but detailed requirements were described on page 64 of the appendix in a policy report provided to Vancouver City Council on September 11, 2013.

These new requirements are part of Vancouver's goal to become the greenest city in the world by 2020. The city has conducted affordability analysis on each of the energy-related measures and concluded they will result in cash savings for most

New Vancouver Building By-Laws 2014

- Where construction value is greater than \$5,000, a current energy assessment (EnerGuide report) is to be provided, and where the scope includes a new boiler or furnace, it must rate AFUE 90 or higher
- Where the construction value is greater than \$25,000 and the air leakage is greater than 5 air changes per hour (in a blower-door test), air sealing measures are required
- Where the construction value exceeds \$50,000, additional insulation may be required in attics and ceilings

homeowners within a modest 5-year timeframe.

My experience suggests the city may have underestimated the energy-savings benefits homeowners will receive as a result of the modest upgrades. I've assessed 400 existing homes, perhaps half of which included character features. An energy assessment, furnace/boiler upgrade, air sealing and attic insulation would have paid for themselves in almost every one of the 400 homes I've assessed.

Two requirements at the bottom of the 2014 VBBL list may present challenges for renovators of some heritage homes. Adding insulation to the narrow cathedral ceiling sections common in two-and-a-half story character homes built before WWII requires cautious consideration of attic ventilation and condensation potential. And while the value of adding sprinklers to heritage buildings is undeniable, the execution requires careful planning and a light touch.

I advise the owner of every character or heritage building to obtain both a heritage assessment and an energy

assessment before beginning work on anything. The best and most affordable renovations result from carefully balancing professional advice with clearly-stated personal objectives. This is what the 2014 VBBL got right: The City has taken steps to ensure that every homeowner has consulted with a trained energy advisor prior to replacing heritage windows or undertaking other unfortunate upgrades.

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