

Fact Sheet

Work With What You Have: Traditional Building Design

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A note on the BC Energy Efficiency Standards Regulation

While the Regulation requires new windows to be manufactured to a certain standard and to achieve a determined Energuide rating, the Act does not apply to:

- ◆ windows for formally-recognized historic structures (designated heritage or listed on a Community Heritage Register)
- ◆ the repair of existing wood windows
- ◆ the manufacture of interior or exterior wood storm sashes
- ◆ windows in unheated buildings such as garages and sheds

Please ask your Certified Energy Advisor for further information or visit the BC Heritage Branch sustainability pages at:

www.for.gov.bc.ca/heritage

For more information, contact Heritage Branch:

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Improving the Energy Efficiency of Your Traditional Home

Aspects of traditional design are inherently green and sustainable, and take into account natural light, airflow, heat retention and cooling. In a typical 1913 house, these may include deep overhanging eaves, the position of opening windows, and porches. The result is that many historic buildings actually have the potential to outperform modern buildings.

Your Energy Advisor is primarily concerned with improving the energy performance of your home. Here are a few tips to help you maximize efficiency while maintaining heritage value:

- ◆ Before your evaluation, you may want to create a list of significant features of your home that you want to keep. This will help your advisor recommend the most appropriate upgrades while ensuring any character-defining elements remain untouched.
- ◆ Some Energy Advisors may specialize in energy retrofits for traditional or heritage homes so it is a good idea to mention this is a concern while booking the visit.

Maintenance

Maintenance and conservation are key elements of sustainability. The basis of conservation is to implement actions or processes to safeguard something we value and extend its physical life. Wood buildings can be maintained indefinitely, in contrast to some building materials that have limited life-spans and can only be replaced.



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Windows

Existing windows often contribute to the heritage value of your home, but a common practice in renovation is to discard the old wood framed windows. However, since windows on average account for only 16% of total heat loss in a house, improving existing windows is almost always more cost effective.

Consider augmenting your existing windows with exterior or interior storm windows. These can be attractive and removable, **and they do not compromise the character defining features of your home.** For additional information about windows please visit:

www.for.gov.bc.ca/heritage/sustainability/windows.htm

Heating

New energy-efficient domestic heating and hot water systems are both cost-effective (they have short payback periods) and can be retrofitted without damaging the special character of your home.

An air-source heat pump can be used to heat air through an existing ducted air system or to heat water for radiators. In colder climates, a ground-source heat pump for heating may be the right choice. You may also consider going to an electric, gas or propane tankless hot water system.

Upgrades should not compromise any character-defining elements of your home. When considering the energy efficiency of your traditionally designed building, keep in mind the following:

- ◆ Close fireplace dampers when not in use
- ◆ Insulate attics, basements and crawlspaces
- ◆ Repair and weather-strip windows to keep them draft-free
- ◆ Consider augmenting existing windows with interior or exterior storm windows.
- ◆ Trees help block wind and provide shade for natural cooling
- ◆ Keep doors draft-free by caulking and weather-stripping gaps and fissures
- ◆ Avoid using environmentally harmful materials such as vinyl or aluminum; instead, re-use traditional materials like brick and wood
- ◆ Replace or supplement ageing or inefficient space and water heating systems
- ◆ Paint acts as a natural vapour barrier; use light-coloured paint to reflect the sun
- ◆ Restore porches, shutters and awnings for shade and insulation
- ◆ Hire a certified energy advisor to assess your home and recommend upgrades

Insulation and Reducing Air Leakage from the Building Envelope

Avoid mixing building components made for new sealed building envelopes (such as modern plastic and aluminum replacement windows) with traditionally-constructed (especially wood) building envelopes.

The effects on moisture movement at the boundary of the two can be unpredictable and may even accelerate the decay of the building envelope.

Here are a few tips to help you avoid these pitfalls:

- ◆ Pin point where air leakage is a problem using the blower door test.
- ◆ Plug the sources of the worst air leaks using materials complementary to existing finishes.
- ◆ Insulate inaccessible cathedral roof structures and over dormers by removing sheathing from above or by blowing in insulation.
- ◆ Insulate the basement where possible.
- ◆ When hiring a contractor to work on your traditional home, ensure the contractor has experience with this type of building and understands the interaction of ventilation and moisture in traditional construction.

