

COUNCIL POLICY

POLICY NUMBER:	DATE OF RESOLUTION:
GREEN BUILDING POLICY	

I. SCOPE OF POLICY

The built environment is an enduring legacy for any community, and plays a key role in Whistler's vision for the future. *Whistler2020* proposes flexible, durable buildings designed to use energy, water and materials efficiently. Community task forces emphasize the role of these "green" buildings in a successful, sustainable community. The benefits of buildings that achieve better performance and reduced environmental impacts include lower operating costs, increased occupant health, and a smaller ecological footprint. Whereas the provincial building code establishes minimum requirements for safe and functional structures, the vision described in *Whistler2020* suggests achieving higher performance whenever possible.

To lead a transition towards the built environment described in *Whistler2020*, this policy provides guidance for the design, construction and operation of buildings and their surrounding landscapes within the Resort Municipality of Whistler. It sets performance goals that are progressively more ambitious over time, for the following building types:

I.1 Commercial

Hotel, office, retail, restaurant, warehouse, commercial recreation and industrial facilities.

I.2 Institutional

Hospitals, clinics, schools, churches, government facilities and other public buildings.

I.3 High Rise Residential

Apartment and condominium dwellings that fall under Part 3 of the provincial building code, typically 5 or more storeys.

I.4 Multi-Unit Residential

Buildings that contain 5 or more dwellings, but are less than 5 storeys.

I.5 Low-density Residential

Buildings containing less than 5 dwelling units (includes detached and duplex dwellings).

I.6 Municipal Buildings

All municipally owned and/or operated facilities with a gross floor area greater than 500 square metres.

Because its scope is limited to the scale of buildings and their immediate surroundings, this policy does not contemplate every initiative that the Municipality might pursue to achieve its green building goals. For example, following certain guidelines associated with Whistler's Protected Areas Network would be consistent with the site and landscape goals of most green building programs. Water pricing might be very effective in reducing the volume of municipal potable water used in buildings throughout the community. Providing community composting and construction waste recycling

facilities will help to reduce the volume of solid waste that Whistler sends to landfills. Establishing a district energy system for the Village could significantly reduce the greenhouse gas emissions associated with heating and cooling our commercial buildings. None of these measures, however, would be required or motivated per se by the green building goals in this policy. Its scope is limited to practices implemented at the scale of individual buildings and their sites.

2. OBJECTIVES

This policy establishes six broad objectives for the design, construction and operation of buildings and their sites in Whistler.

Site/Landscape

- 2.1 Minimise disturbance to natural habitat, vegetation and hydrology through careful location, design, construction and site rehabilitation.

Energy

- 2.2 Decrease energy requirements and associated greenhouse gas emissions; lower the share of energy supplied by non-renewable sources.

Water

- 2.3 Reduce the total volume of water used for buildings and associated landscaping; lower the share of water needs met through the municipal potable system.

Materials

- 2.4 Use less new material through efficient design and engineering, and material reuse; increase the application of renewable, recycled and locally-sourced materials.

Waste

- 2.5 Lower the total volume of waste sent to landfills during construction and occupancy; work toward the community's goal of generating no landfill waste.

Indoor Environment

- 2.6 Minimise chemical emissions from materials used in buildings; provide excellent ventilation and air filtering.

3. BEST PRACTICES

Public, private and non-profit agencies around the world have developed programs for better building performance and reduced environmental impacts. These “green building” programs vary in terms of specific criteria, certification requirements and details, but are typically arranged according to some or all of the categories noted in the “Objectives” section of this policy. The LEED (Leadership in Energy in Environmental Design) system is the most widely recognized in North America and perhaps globally; it is the basis for the RMOW’s performance goals respecting Commercial, Institutional, Municipal and High-Rise Residential buildings.

To incorporate the relevant elements of these systems in a locally adapted and administered program, the RMOW developed Whistler Green, a green building checklist for low-density residential dwellings. Many local projects, including Cheakamus Crossing and Fitzsimmons Walk, follow the

Whistler Green guidelines. Also recognizing the absence of an acceptable green building standard for the residential sector, the Canadian Home Builder’s Association introduced the Built Green program. Whistler Green and Built Green are the basis for the RMOW’s performance goals respecting low- and medium density dwellings.

By establishing goals with reference to widely recognized but also locally relevant programs, Whistler’s Green Building Policy ensures that projects affecting the built environment are guided by current and evolving standards for better performance. To this end the policy refers to particular building rating programs; however, the RMOW may accept adherence to programs not referenced in this document if independent verification is provided. Regardless of the rating scheme invoked, all construction and renovation projects are expected to meet the Site and Landscape, Energy, Water, Waste, Materials and Indoor Environment objectives described in Section 2, above.

4. PROCEDURE

Local governments in British Columbia help to shape the built environment through their authority to govern land use and their responsibility for administering the provincial building code. In its capacity as a policy maker and regulator the RMOW will guide applicants to enhance the performance of their construction or renovation projects by meeting the following goals:

Building Type	Rating System	Performance Goals			
		2008	2010	2012	2015
Municipal Buildings	LEED	Silver	Gold	Gold	Platinum
Commercial, Institutional, High-Rise Residential (at least 50% of total value, and building envelope)	LEED – NC	Silver, AND 25% better than MNECB		Gold, AND 35% better than MNECB	
Renovations: Commercial, Institutional, High-Rise Residential (less than 50% of total value)	LEED – EB	Silver		Gold	
Multi-Unit and Low-Density Residential	Built Green	Silver, AND Energuide ¹ 78		Gold, AND Energuide 80	
	Whistler Green	Adopter (20 points)		Achiever (30 points)	
Renovations: Multi-Unit and Low-Density Residential	Residential renovation projects follow the same procedures as new construction, but will only be evaluated for their incorporation of green building practices in categories applicable to the renovations.				

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This section describes the building and development application procedures that will be followed to meet these goals. The procedures are intended to ensure early and ongoing consideration of green building practices, and their implementation in all new construction and renovation projects.

4.1 Application Checklist (all applications)

Prior to processing Building Permit, Development Permit or Zoning Amendment applications the RMOW will require the submission of a checklist or narrative indicating how proposed buildings respond to the green building objectives outlined in this policy. Applicants are strongly encouraged, but not required, to use a checklist associated with a recognized green building program such as LEED, Whistler Green or Built Green.

4.2 Checklist Review (all applications)

Municipal staff will review the application checklist and may work with applicants to identify appropriate green building choices for the project. Based on this review, and as planning and design work progress, applicants should refine and/or update their green building choices. Any changes or new information must be documented in the checklist.

4.3 Revised Checklist (all applications)

Before the RMOW issues a Building Permit or Development Permit, applicants will be required to re-submit their green building checklist reflecting the most current strategies, practices or targets. For instance, relative to the application checklist, the revised checklist might indicate additional storm water management details, new energy performance targets, or material reclamation opportunities that have been updated during the design process. The revised checklist should be accompanied by a covering letter, signed by the project architect, builder or another coordinating professional, indicating that any building or landscape plans, drawings and specifications reflect the identified green building practices.

4.4 Green Building Commitment (Zoning Amendment applications)

Prior to adopting a Zoning Amendment Bylaw, the RMOW will require the revised checklist, along with provisions that can be enforced to ensure future development is consistent with this Green Building Policy. These provisions should be in the form of a covenant pursuant to Section 219 of the *Local Government Act*.

4.5 Project Completion Report (Building Permit applications)

Prior to the completion of any project requiring a building permit, the RMOW will require a report detailing the implementation of the green building practices proposed in the project checklist. For each item in the checklist, the project completion report should indicate whether or not the item was incorporated, and describe the manner and extent of its application. This report should be signed by the project architect, builder or another coordinating professional.

The application procedures, and their associated green building submission requirements, are summarized in the following table:

Procedure	Building Permit	Development Permit	Zoning Amendment
Application Checklist <i>Submit a completed green building checklist or narrative for the project.</i>		Required	
Checklist Review <i>Review and refine checklist with RMOW staff or project consultants.</i>		Recommended	
Revised Checklist <i>Signed by the project architect or other coordinating professional.</i>		Required	
Green Building Commitment <i>S.219 covenant or equivalent instrument requiring development consistent with the green building objectives of this policy.</i>		n/a	Required
Project Completion Report <i>Summarise implementation of items in checklist</i>	Required		n/a

5. SCHEDULES AND FORMS

Schedule A: Summary of Recommended Green Building Practices

Schedule B: Acronyms and Definitions

Schedule C: LEED – NC Checklist

Schedule D: Whistler Green Checklist

Schedule E: Built Green Checklist

Certified Correct:

Shannon Story, Manager of Legislative Services

SCHEDULE A
Summary of Recommended Green Building Practices

Objective	Practices
Site & Landscape	<p>Select a previously developed site that is close to transit, pedestrian/cycling routes, amenities, and municipal infrastructure.</p> <p>Protect existing trees, vegetation and soil during construction; minimize erosion.</p> <p>Absorb and detain storm water on the development site.</p> <p>Choose landscape plants suited to local climate conditions.</p>
Energy	<p>Target Energuide 78, or 25% better than Model National Energy Code performance</p> <p>Design for natural heating, lighting, and ventilation, and solar thermal devices.</p> <p>Avoid the use of electric resistance heating (e.g. baseboards).</p>
Water	<p>Do not install irrigation, or use a water-efficient system.</p> <p>Collect and reuse precipitation.</p> <p>Install only water-efficient toilets and urinals, fixtures, and appliances.</p>
Materials	<p>Design compact, flexible and adaptable buildings.</p> <p>Use recycled or engineered structural materials and efficient framing.</p> <p>Use reclaimed, durable, renewable and locally-sourced materials, and certified wood.</p>
Waste	<p>Minimise construction waste; recycle at least 50% of waste generated in construction.</p> <p>Provide convenient recycling and organic waste diversion for all buildings.</p>
Indoor Environment	<p>Specify low-emission materials (e.g. paints, adhesives, cabinets, panels and flooring).</p> <p>Install improved ventilation and furnace filters (minimum MERV 4 rating).</p> <p>Use hard-surface flooring rather than carpet.</p>

SCHEDULE B

Acronyms and Definitions

Built Green	A green building rating system for residential construction, developed and administered by the Canadian Home Builders Association
CHBA	Canadian Home Builders Association
CaGBC	Canada Green Building Council
Energuide	An energy rating system for detached dwellings and low-rise multi-unit residential buildings, developed by Natural Resources Canada. Models and measures energy performance and reports results on non-linear scale of 1 – 100.
LEED	Leadership in Energy and Environmental Design. A green building rating system originally developed by the United States Green Building Council (USGBC), and now maintained and administered by both the USGBC and the Canada Green Building Councils.
LEED – NC	LEED for New Construction and Major Renovations. The original and most widely implemented version of the LEED program. LEED - NC is normally used to evaluate large commercial, industrial, office, high-rise residential and other similar building types.
LEED – EB	LEED for Existing Buildings. An adaptation of the LEED – NC program to be used for projects that do not affect the building envelop and are projected to cost less than 50% of the total building value.
MNECB	Model National Energy Code for Buildings. A comprehensive standard for building energy performance released in 1997 by the National Research Council of Canada. Similar to the standard known as ASHRAE-90.1.
RMOW	Resort Municipality of Whistler
USGBC	United States Green Building Council
Whistler Green	A green building rating system for residential construction, developed and maintained by the RMOW.