



City of Vancouver *Planning - By-law Administration Bulletins*

Planning, Urban Design and Sustainability Department

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PASSIVE DESIGN: DEMOUNTABLE GREEN WALLS

*Authority - Director of Planning
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1 Introduction

On May 7, 2009 Vancouver City Council endorsed the Passive Design Toolkits. On May 31, 2011, Council amended the Zoning and Development By law to introduce discretion to the Director of Planning to consider, under certain conditions, projections into required yards and setbacks for demountable green walls.

The purpose of this bulletin is to provide clarification to staff and applicants on what may be considered, and the criteria that will apply in evaluation.

2 Passive Design and Green Walls

Passive design aims to maximize occupant health and comfort while minimizing energy use by relying less on mechanical and electrical systems. Vancouver's two Passive Design Toolkits (one looks at homes and the other at larger buildings) detail ways to reduce energy use - and associated greenhouse gases - in new buildings in Vancouver.

One element of passive design is incorporating green or "living" walls - walls that are covered with vegetation. A green wall typically takes the form of a lightweight structural framework affixed to an exterior wall to support plant growth, and may include a growing medium and/or irrigation system. Green walls reduce glare, noise, and the heat island effect (in which urban areas are warmer than rural ones because of heat-absorbing city surfaces).

3 Discretionary Criteria

When designing a green wall, conflicts may arise in terms of projections into required yards and setbacks. Green walls may be considered for projections into required yards and setbacks, provided that:

- (a) the wall is demountable and not permanently affixed to the building;
- (b) the structure and vegetation do not extend more than 254 mm (10") measured horizontally from the face of the building;
- (c) the Director of Planning has considered whether the wall is appropriately sited, oriented and sized to contribute to sustainable design performance such as reducing glare and noise, and
- (d) the wall complies with the Vancouver Building By-law.

The design of a green wall should also be considered in terms of any relevant Council policies and guidelines, and Vancouver's Water Wise Guidelines are a related resource. As well, CPTED principles should be considered.

4 Submission Requirements

To apply for a projection for a green wall, the following will be required in addition to standard submission materials:

- (a) A written rationale for the green wall(s) which addresses relevant sections of the by-laws, policies, guidelines as well as the criteria noted above;
- (b) Drawings that illustrate the design and placement of the green wall(s), and specify the plant material and long term maintenance plan (integral irrigation system, hose bibs, etc.); and
- (c) Details of the proposed method of fastening the green wall to the building exterior.

Depending on the extent of the projection and the design proposed, the Director of Planning may also require additional information or approvals from other City departments. Further review from Planning, Landscape Review, and/or Engineering Services may be required.