



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

## Planning, Urban Design and Sustainability Department

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# HALF-STOREY EXPRESSION AND CONSTRUCTION

*Authority - Director of Planning*  
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## 1 Background

The purpose of this bulletin is to provide clarification on architectural expression, technical regulation, and construction for a “half-storey” above a second storey, for development proposals seeking conditional approval in discretionary zones. The “half-storey” definition typically applies to one and two-family dwellings and infill developments in RT zones.

Some of this advice also applies to development proposals with “partial third storeys”, which typically include one and two-family dwellings, infill, rowhouses and stacked townhouses in RM zones.

## 2 Issue

In a conditional development application, a “half-storey” above a second storey is assessed in two ways: 1) whether it meets the *intent* of a “half-storey expression”, as described in the design guidelines; and 2) whether it meets the *technical definition* of “half-storey”, as described in the Zoning and Development Bylaw.

### 2.1 Architectural Expression

In most discretionary zones where a “half-storey” or a “partial storey” is permitted, the intent is to provide habitable area *within* a primary roof form, similar to traditional house types in Vancouver’s established neighbourhoods. Most traditional house types feature a simple gable or cross-gable roof with modest dormers.

In some recent developments, the execution of half-storeys has created overly long and/or complex dormers in a gable roof, or an isolated penthouse surrounded by roof decks or lower-pitch roofs. While these designs may satisfy the technical regulations for a half-storey, they often do not meet the intent of the zone’s design guidelines.

### 2.2 Technical Regulation

A “half-storey” is defined in Section 2 of the Zoning and Development Bylaw and, as such, is not subject to discretion or “relaxations”. A half-storey is:

*“the uppermost level of a building where the floor area, existing, proposed or as may be extended over open-to-below space, and having a minimum ceiling height of 1.2 m, does not exceed 50 percent of the storey immediately below.”*

This Bulletin seeks to clarify how this bylaw should be applied, under various approaches to the delineation of spaces under the roof, and the design of the roof structure itself.

A “partial storey” is not specifically defined in Section 2, and may exceed 50% of the floor below if the design meets the intent of the zone. Technical criteria and design considerations for a “partial” storey may be located in the relevant District Schedule and/or Design Guidelines.

### 3 Principles for Architectural Expression and Technical Design

#### 3.1 Architectural Expression

Development proposals that feature a half-storey and a traditional, pitched roof should adhere to the following design principles, based on traditional buildings in Vancouver neighbourhoods:

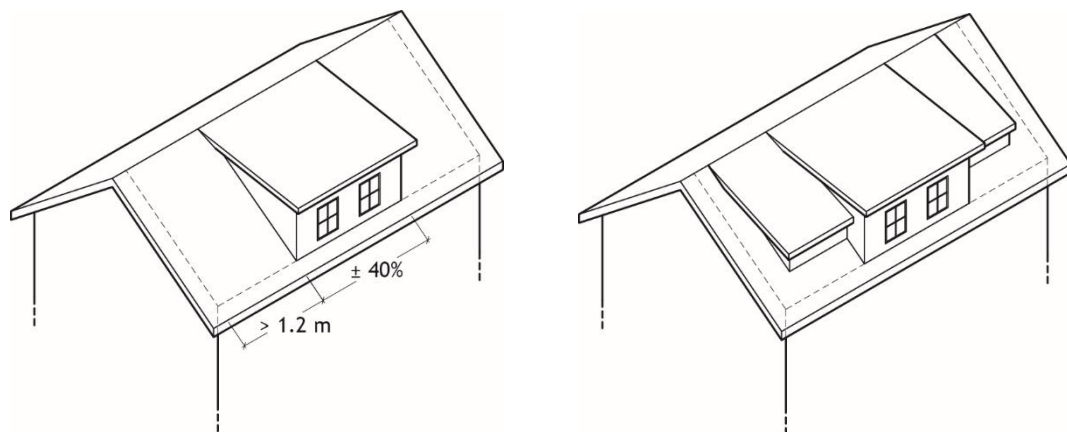
- Contain a half-storey of habitable space *within* the primary roof form;
- Maintain the clarity of a simple, steeply-sloped primary roof, in which dormers are clearly secondary elements;
- Limit the extent of dormers (typically less than 40% of the roof length);
- Set dormers a minimum 1.2 m (4 ft.) back from the front facade;
- Include windows in dormers to improve access to light and natural ventilation (See Figure 1a)
- Avoid tiered or staggered dormers with multiple roof slopes (See Figure 1b);

For designs in this traditional style (i.e. gable roof), it is expected that a substantial amount of habitable space in the half-storey will have sloped ceilings and heights less than 2.4 m (8 ft.). If this is undesirable, the zoning offers alternate locations for the floor area (e.g. the basement).

In discretionary zones that allow contemporary architectural expression), a half-storey design should:

- Have the appearance of a modest partial storey, not a full third-storey;
- Be substantially set back from the front and back sides. The set back from the front elevation should be minimum 2.4 m (8 ft.), or as recommended by the district guidelines.

Figure 1: Architectural Expression



a. Design a roof form that has simple secondary dormer(s) with windows.

b. Avoid designs with complex tiered and staggered dormers.

#### 3.2 Technical Design and Construction

The technical design of a half-storey requires careful attention to floorspace calculations. The *net area* of the half-storey cannot exceed 50% of the *net area* of the floor immediately below (e.g. the second floor). (See Figure 2)

Net floor area of a half-storey *includes* the entire floor area, or potential floor area, under the roof, regardless of:

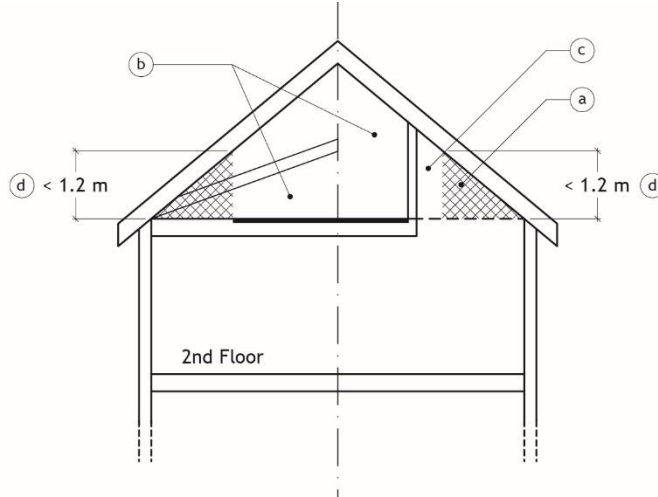
- location of walls (i.e. floor space is counted beyond the wall to a height of 1.2 m/4 ft.);

- removal of a portion of the floor to create a double-height space at the second storey (i.e. floor space is counted where the floor “may be extended”); **and**
- a step in the floor level, including across a party wall between two dwelling units.

Net floor area of a half-storey *excludes*:

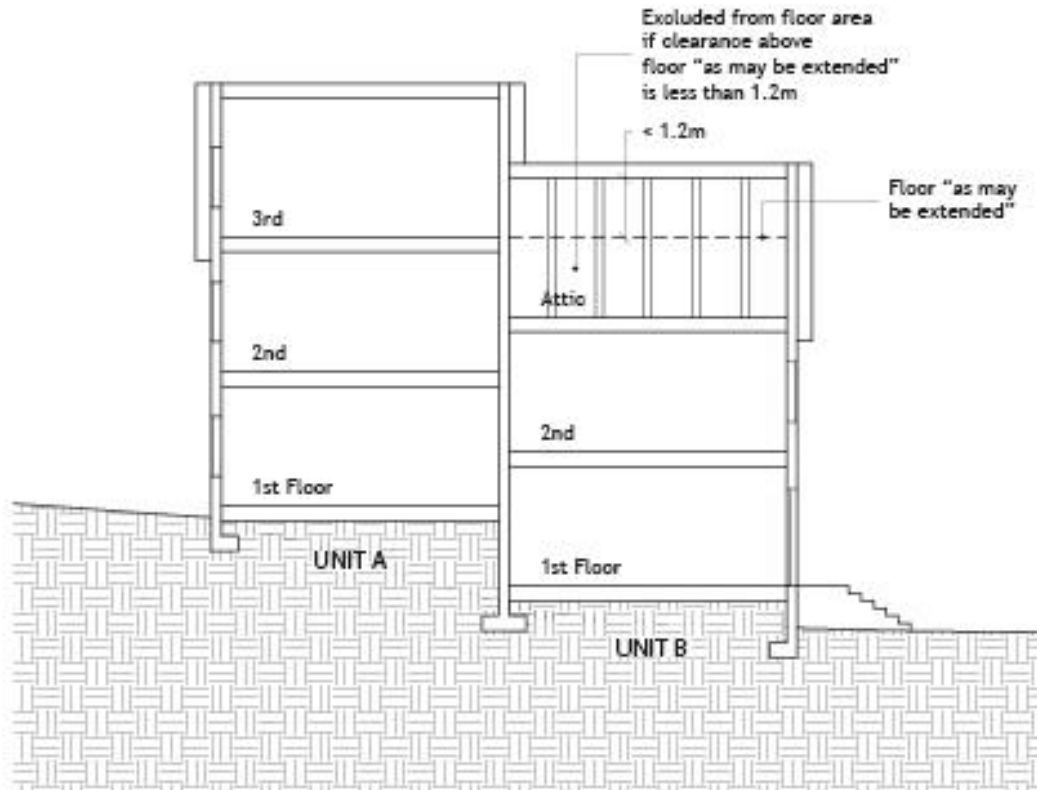
- floor space with a ceiling height of less than 1.2 m (4 ft.), measured from the top of the floor sheathing to the underside of the uppermost structure (e.g. top chord of any truss, rafter, or beam) **and**
- floor space with a ceiling height of less than 1.2 m (4 ft.), measured from the hypothetical extension of an adjacent floor to the underside of the uppermost structure.

Figure 2: Technical Design



- Excluded from floorspace: less than 1.2 m height
- Included in floorspace: adjacent attic space, more than 1.2 m height
- Included in floorspace: floor area “as may be extended over open-to-below space”
- Height measured from floor sheathing to underside of the uppermost structure.

a. Cross Section



b. Longitudinal Section