PARTIAL STOREY EXPRESSION AND CONSTRUCTION

Authority - Director of Planning
Effective March 22, 2017
Amended May 18, 2017 and November 14, 2022

1   Background

The purpose of this bulletin is to provide clarification on architectural expression, technical regulation, and construction for a "partial storey" above a second storey, for development proposals seeking conditional approval in discretionary zones. The "partial storey" definition typically applies to single detached houses and duplexes and infill developments in RT zones.

Some of this advice also applies to development proposals with "partial third storeys", which typically include single detached houses and duplexes, infill, rowhouses and stacked townhouses in RM zones.

2   Issue

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

2.1   Architectural Expression

In most discretionary zones where 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 partial 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 partial storey, they often do not meet the intent of the zone's design guidelines.

2.2   Technical Regulation

A "partial storey" is defined in Section 2 of the Zoning and Development By-law and, as such, is not subject to discretion or "relaxations". A partial 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" 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 partial storey and a traditional, pitched roof should adhere to the following design principles, based on traditional buildings in Vancouver neighbourhoods:
- Contain a partial 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 partial 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 partial 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
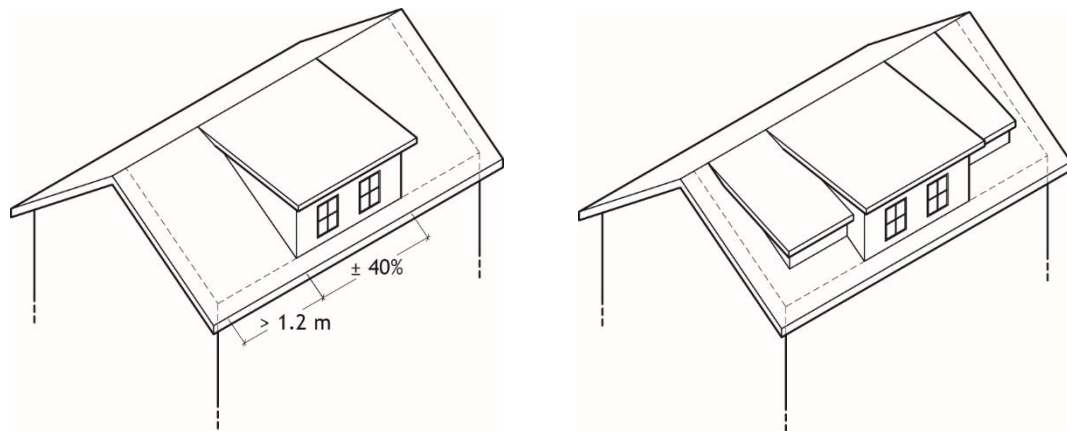
a. Design a roof form that has simple secondary dormer(s) with windows.

b. Avoid designs with complex tiered and staggered dormers.

3.2 Technical Design and Construction

The technical design of a partial storey requires careful attention to floorspace calculations. The *net area* of the partial 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 partial 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 duplexes.

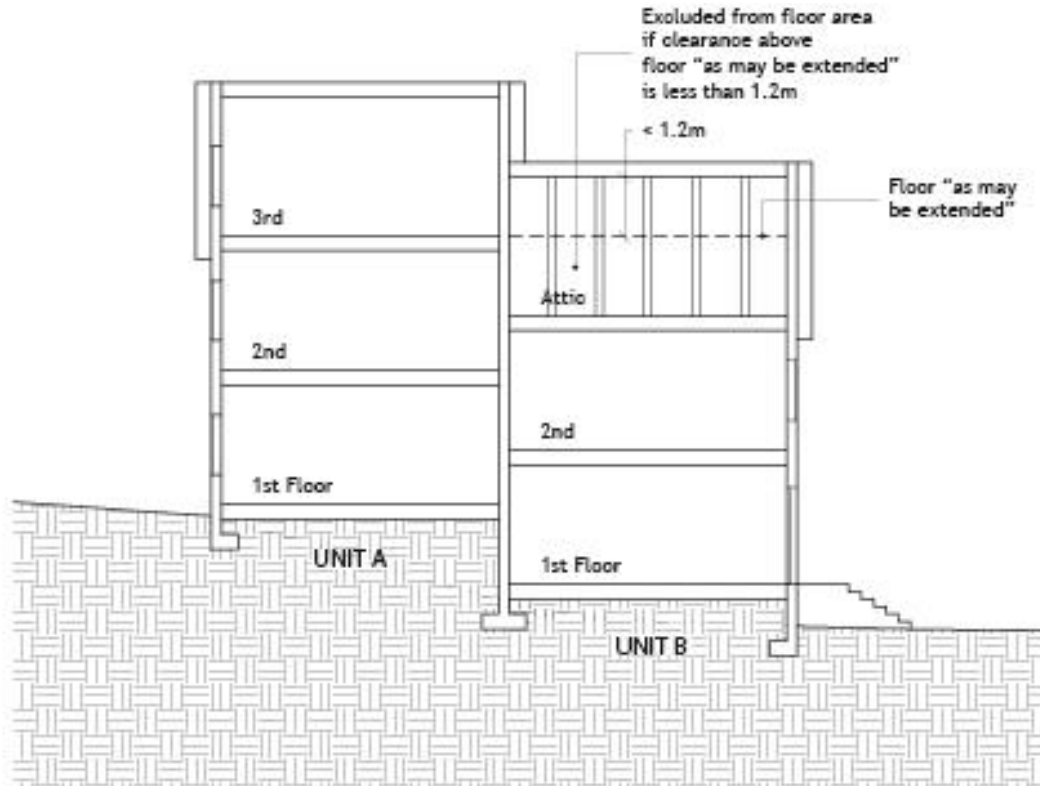Net floor area of a partial storey *excludes*:
- floor space with a ceiling height of less than 1.2 m (4 ft.), measured from the top of the floor sheathing to the underside of the uppermost structure (e.g. top chord of any truss, rafter, or beam) **and**
- floor space with a ceiling height of less than 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
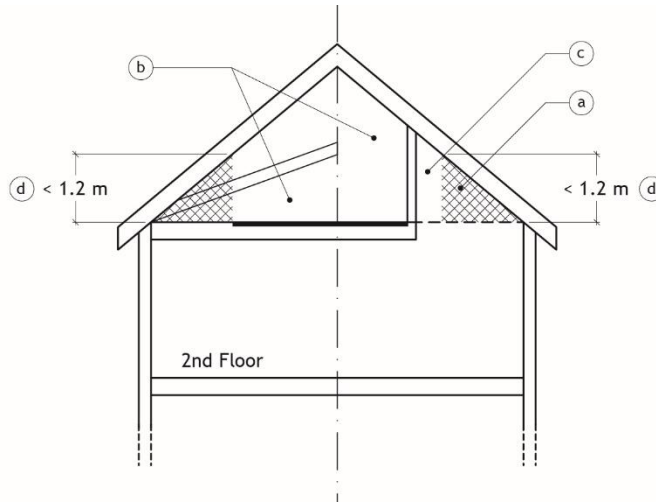
a. Excluded from floorspace: less than 1.2 m height

b. Included in floorspace: adjacent attic space, more than 1.2 m height

c. Included in floorspace: floor area "as may be extended over open-to-below space"

d. Height measured from floor sheathing to underside of the uppermost structure.

a. **Cross Section**

b. **Longitudinal Section**