

5. RM-7AN Guidelines

THAT the document entitled "RM-7AN Guidelines" be approved by Council for use by applicants and staff for development applications in the new RM-7AN District.

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RM-7AN GUIDELINES

1 Application and Intent

These guidelines are to be used in conjunction with the RM-7AN District Schedule of the **Zoning and Development By-law**.

The RM-7AN District Schedule includes “multiple dwelling” and “freehold rowhouses” as conditional uses. In this zone, a multiple dwelling may take the form of a stacked townhouse, a courtyard rowhouse or a strata rowhouse development. Freehold rowhouses are listed as a separate use, however, strata rowhouse and freehold rowhouse developments follow the same regulations and guidelines. Throughout the RM-7AN Guidelines, they are simply referred to as “rowhouses”.

The main difference between a strata rowhouse and a freehold rowhouse development is the minimum width of the rowhouse. In order to provide services (e.g. water, sewer, gas) to a freehold rowhouse and subdivide the development into fee simple lots, a minimum lot width and frontage of 5.0 m (16.4 ft.) is required.

The developer needs to decide at the initial stage of the application whether a rowhouse development will be freehold or strata. For freehold rowhouse developments, additional zoning regulations in Section 11.25 of the Zoning and Development By-law need to be met.

1.1 Intent

The intent of these guidelines is to:

- (a) Encourage the development of ground-oriented, medium-density multiple dwellings in the form of rowhouses, courtyard rowhouses and stacked townhouses, the majority of which are suitably sized for families (i.e. two- and three-bedroom units). Rowhouses can be strata titled or subdivided into freehold rowhouses – they are simply referred to as rowhouses throughout this document;
- (b) Ensure a high level of activation of residential street life;
- (c) Ensure neighbourliness while recognizing that the new development’s siting is not intended to be the same as development under RS zoning;
- (d) Ensure a high standard of livability for all new dwelling units, including lock-off units. Emphasis is placed on ground-oriented access, natural light and cross-ventilation, as well as usable private outdoor space for each unit;
- (e) Ensure durable and sustainable design, while allowing architectural diversity rather than prescribing any particular architectural character; and
- (f) Support the retention and renovation of pre-1940s houses that retain original character elements and to permit infill one-family dwellings on these sites.

1.2 Application

These guidelines apply to most new conditional residential development, as well as significant renovations or additions:

- (a) Multiple Dwelling, such as strata rowhouses (referred to as “rowhouses” in these guidelines), courtyard rowhouses and stacked townhouses;
- (b) Freehold rowhouses (referred to as “rowhouses” in these guidelines);
- (c) Multiple Conversion Dwelling, other than those permitted outright in the RM-7AN District Schedule;

- (d) Infill in conjunction with the retention of a pre-1940s house; and
- (e) Two principal buildings (one duplex and one one-family dwelling or two one-family dwellings) on a lot that backs or flanks onto a school or park, on a corner lot or on a lot that is more than 52 m (170 ft.) deep.

On lots with one principal building only, i.e. lots with only a two-family dwelling, a two-family dwelling with secondary suite, a one-family dwelling or a one-family dwelling with secondary suite (and/or laneway house), these guidelines do not apply. One-family dwellings and one-family dwellings with secondary suite as the only principal building on a site refer to RS-1. Additional regulations apply for laneway housing, such as Section 11.24 of the **Zoning and Development By-law**.

In situations where an applicant proposes an addition of less than 9.3 m² (100 sq. ft.) that is not visible from the street, the application will only be evaluated against Sections 2 and 4 of these guidelines.

2 General Design Considerations

2.1 Neighbourhood/Streetscape Character

The existing neighbourhood consists of single family homes and shows many characteristics of a typical Vancouver single-family neighbourhood, such as a regular spacing of houses, individual front yards, etc. New development should be compatible with the existing pattern with respect to:

- (a) Providing a clear visible identity of dwelling units from the street through elements that can be found in single family dwellings, such as individual front doors, porches, steps and front yards;
- (b) Providing opportunities for social interaction between the public realm on the sidewalk and the private home; and
- (c) Locating garages and vehicular access at the rear of the site.

2.2 Development Scenarios and Building Typologies

2.2.1 Development Scenarios

The RM-7AN zone provides an array of options for individual lots and consolidated sites, as shown in Table 1.

Table 1: Development Scenarios

Typical Lot Characteristics	Permitted Uses	Maximum Allowable FSR	Notes
(A) Site area minimum 3,260 sq. ft. (303 m ²)	<ul style="list-style-type: none"> One-family dwelling One-family dwelling with secondary suite and/or laneway house (per RS-1) 	0.60-0.70 FSR + laneway house; subject to RS-1	<ul style="list-style-type: none"> RS-1 District Schedule applies RM-7AN Guidelines do not apply
(B) Site area minimum 3,260 sq. ft. (303 m ²)	<ul style="list-style-type: none"> Two-family dwelling (duplex) (with or without secondary suites) 	0.75 FSR	<ul style="list-style-type: none"> Each ½ Duplex may contain one secondary suite No guidelines, but section 4.17 in District Schedule applies
(C) Site area minimum 3,260 sq. ft. (303 m ²)	<ul style="list-style-type: none"> Conversion of existing house (Multiple Conversion Dwelling - MCD) 	Existing FSR; up to 0.90 FSR for pre-1940 character building retention	<ul style="list-style-type: none"> MCD to two units outright MCD to max 3 units conditional
(D) Site area minimum 3,260 sq. ft. (303 m ²)	<ul style="list-style-type: none"> Two principal buildings or infill with existing one-family dwelling or two-family dwelling on: <ul style="list-style-type: none"> sites where the rear or side property line abuts a park or school site, with or without the intervention of a lane, corner sites, or sites with a lot depth of more than 52 m (170 ft.) 	0.85 FSR	<ul style="list-style-type: none"> RM-7AN Guidelines apply Number of units determined by site area and width and ability to meet parking requirements
(E) Site area minimum 3,260 sq. ft. (303 m ²)	<ul style="list-style-type: none"> Infill with retention of pre-1940s building* 	0.90 FSR, of which 0.20 FSR can be allocated to the infill	<ul style="list-style-type: none"> The Infill should be located at the rear of the lot, close to the lane.
(F) Site area minimum 3,260 sq. ft. (303 m ²) and minimum lot width 32 ft. (9.8 m)	<ul style="list-style-type: none"> Multiple dwelling in the form of stacked townhouse (with option for lock-off units) 	0.90 FSR	<ul style="list-style-type: none"> Max. Dwelling Unit Density 100/ha One lock-off unit for three stacked townhouse units
(G) Site area minimum 3,260 sq. ft. (303 m ²) and minimum lot width of 48 ft. (14.6m)	<ul style="list-style-type: none"> Multiple dwelling in the form of three rowhouses **(with option for lock-off units) 	0.90 FSR	<ul style="list-style-type: none"> Each rowhouse can have a maximum of one lock-off unit
(H) Site area minimum 4,790 sq. ft. (445 m ²) and lot width minimum 42 ft. (12.8 m)	<ul style="list-style-type: none"> Multiple dwelling in the form of stacked townhouses (with option for lock off units) 	1.20 FSR	<ul style="list-style-type: none"> Max Dwelling Unit Density 132/ha One lock-off unit for three stacked townhouse units
(I) Site area minimum 4,790 sq. ft. (445 m ²) and lot width minimum 62 ft. (18.9 m)	<ul style="list-style-type: none"> Multiple dwelling in the form of a minimum of four rowhouses ** (with option for lock-off units) 	1.20 FSR	<ul style="list-style-type: none"> Each rowhouse can have a maximum of one lock-off unit

(J) Site area minimum 7,567 sq. ft. (703 m ²) and lot width minimum 62 ft. (18.9 m)	<ul style="list-style-type: none"> Multiple dwelling in the form of courtyard rowhouses (with option for lock-off units) 	1.20 FSR	<ul style="list-style-type: none"> One lock-off unit for three courtyard rowhouse units
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* Pre-1940 Building Retention:

Buildings constructed before January 1, 1940, and which maintain significant elements of their original character, may be eligible for incentives such as an infill building and/or an FSR increase to 0.9.

- (a) Retention of a character building is at the applicant's discretion;
- (b) Pre-1940 buildings which have not retained significant elements of their original character may, if character elements are fully restored as part of the development proposal, allow the proposed development to be considered for the incentives and relaxations available to developments with pre-1940 buildings.

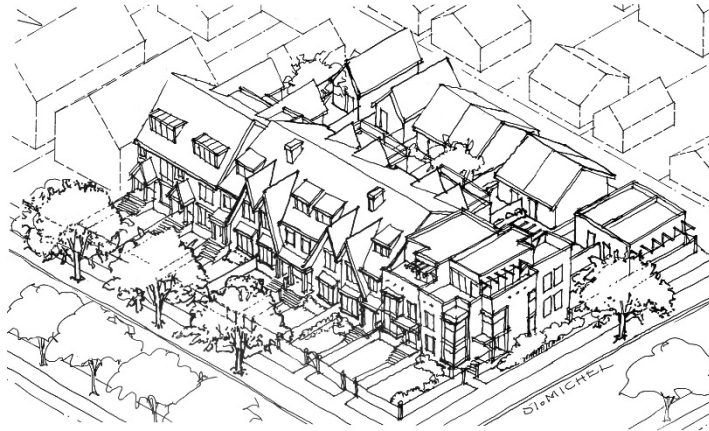
** Fee simple rowhouses need to provide a minimum width of 5.0 m (16.4 ft.) each to be able to meet servicing requirements (e.g. water, sewer, gas).

2.2.2 Building Typologies

The RM-7AN District Schedule is designed to accommodate three types of multiple dwelling: the rowhouse, courtyard rowhouse and the stacked townhouse.

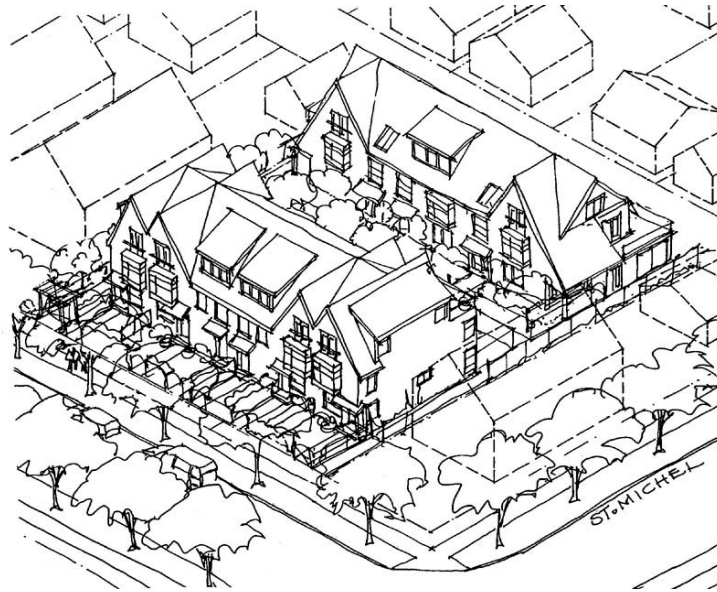
- (a) Rowhouse Characteristics:
 - (i) A rowhouse development is comprised of side-by-side units – units are not stacked on top of each other (see Figure 1).
 - (ii) Each rowhouse has access to the front and rear yard.
 - (iii) Rowhouse developments consist of one row of units at the front of the site. The row may be broken up into more than one building.
 - (iv) The individual rowhouse unit should be no less than 3.6 m (12 ft.) clear, measured from internal wall finish to internal wall finish. Narrower units can be considered if improved livability is provided (e.g. end units with three exposures).
 - (v) Rowhouses can be strata titled or freehold. The term “rowhouse” in these guidelines refers to any rowhouse development whether they will be strata titled or subdivided into freehold lots.

Figure 1: Rowhouse



- (b) Courtyard Rowhouse Characteristics:
- (i) The basic type will have one row of side-by-side units near the street, and one near the lane (i.e. two principal buildings) with parking provided at grade under the rear row of units, or underground (see Figure 2).
 - (ii) The row of side-by-side units may be broken up into more than one building.
 - (iii) An “L” shape configuration is possible on corner sites. This form is recommended where the development site is adjacent to an RS zoned site.
 - (iv) Each unit has access to private open space and entries that are accessible from the street (for the front row of units) or the courtyard (for the rear row of units).
 - (v) Stacked units may be considered, subject to these guidelines.
 - (vi) Individual rowhouses should be no less than 3.6 m (12 ft.) clear, measured from internal wall finish to internal wall finish. Narrower units can be considered if improved livability is provided (e.g. end units with three exposures).

Figure 2. Courtyard Rowhouse



(c) **Stacked Townhouse Characteristics:**

- (i) A stacked townhouse development is comprised of units that are stacked on top of each other. This can include three units located on top of each other, two-level units stacked on top of one-level units, or two-level units stacked on top of two-level units. Other layout solutions may be possible (see Figures 3 and 4).
- (ii) Stacked townhouses feature private open spaces for all units and entries that are directly accessible and visible from the front yard.
- (iii) Access to each unit is achieved through external and internal stairs.
- (iv) The minimum width of major living spaces (e.g. living room) of any dwelling unit should not be less than 4.2 m (14 ft.).

Figure 3: Three-unit stacked townhouse (triplex) on single lot

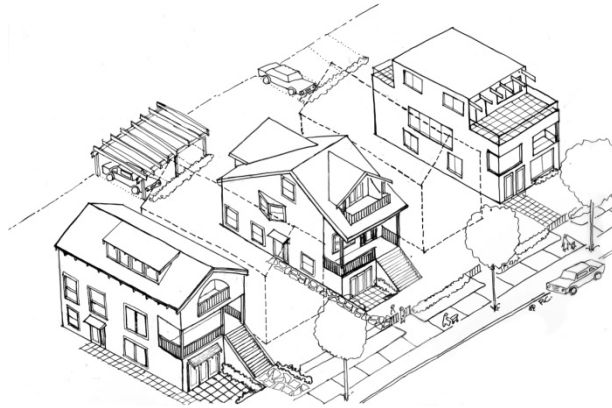
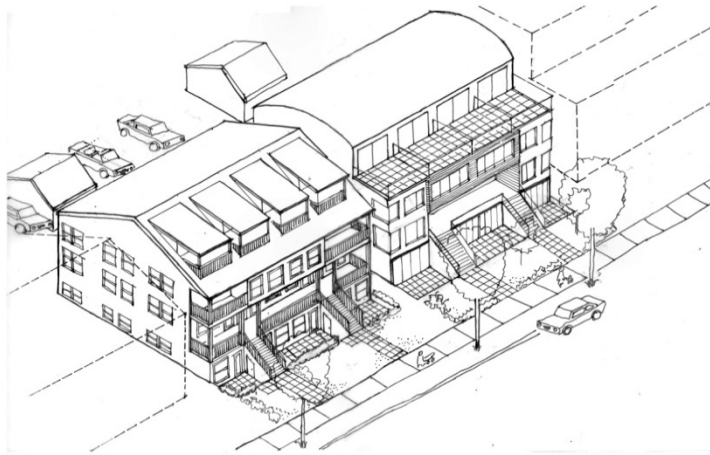


Figure 4: Multiple unit (four or more) stacked townhouse on assembled site or large lot



2.3 Orientation

An important aspect of rowhouses, courtyard rowhouses which face the street, and stacked townhouses is the emphasis on street-facing front door entries and private outdoor spaces for all dwelling units. An apartment form with single entry to the building and common interior corridors as the primary access to units is generally not permitted in the RM-7AN District Schedule.

The intent is to maximize active street life, and the following elements are strongly encouraged: front entry porches, front doors, external porch stairs and living room windows. In addition, covered balconies, front patios and secondary patios help activate the street for the stacked townhouses form (see Figures 5 and 6).

- (a) Developments should orient the main entrances to the street, and entries should be clearly visible from the street and the sidewalk. Discrete lighting of paths and entries should be provided.
- (b) On corner sites, building fronts and entrances should be located facing both streets.

- (c) Units in the rear buildings of courtyard rowhouses should have front entrances oriented to the internal courtyard. A generous and clearly marked passage from the street to the courtyard should be provided (see section 2.11). On a corner or double-fronting site, all elevations which face a street should be fully designed and detailed.
- (d) Stacked townhouses on interior sites may have the main entrance to the dwelling unit from a side yard. However, a larger side yard setback with a minimum of 2.4 m (8 ft.) should be provided for the portion of travel between the front property line and the front entrance.
- (e) Entrances to lock-off units may be located on a building elevation that is not directly oriented toward the street; however, there must be a wayfinding element at the front of the site that clearly directs individuals to the entrance of the lock-off unit.
- (f) Each rowhouse unit should have a rear entrance to provide access to the rear yard and allow for light and cross-ventilation.

Figure 5: Example of front elevation of nine unit stacked townhouse development

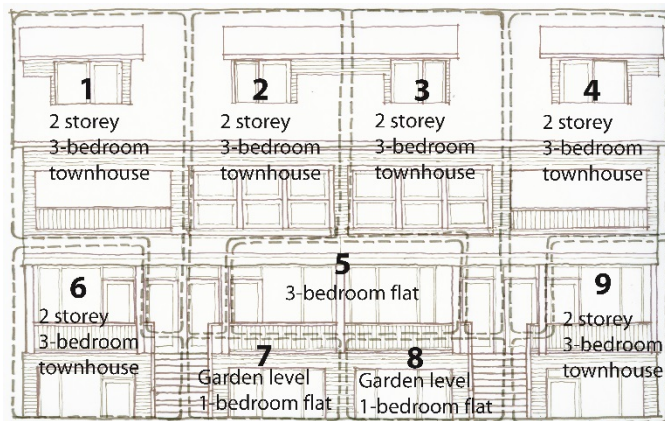
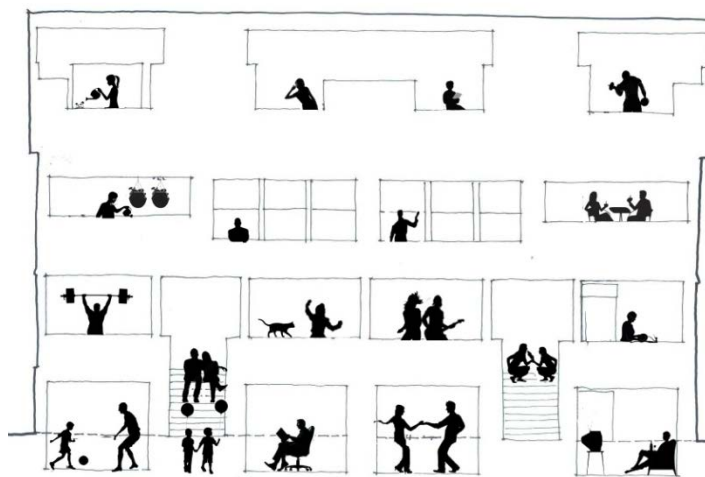


Figure 6: Porches and balconies activate the building



2.6 Light and Ventilation

Access to natural light and ventilation affects the livability of dwelling units. While it is relatively easy to provide for these qualities in a one-family dwelling, a stronger design effort is required to ensure these qualities in multiple dwellings.

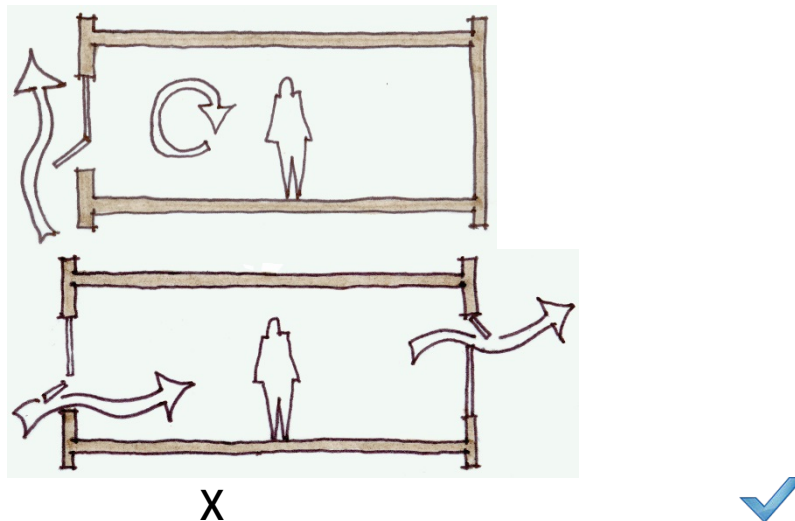
2.6.1 Access to Natural Light

- (a) Daylight for interior and exterior spaces for all housing types should be maximized.
- (b) Multiple dwellings have to meet the Horizontal Angle of Daylight requirements of the RM-7AN District Schedule.
- (c) Shadowing on adjacent sites should be minimized.
- (d) For all housing types, all habitable rooms (not including bathrooms and kitchens) should have at least one window on an exterior wall.

2.6.2 Natural Ventilation

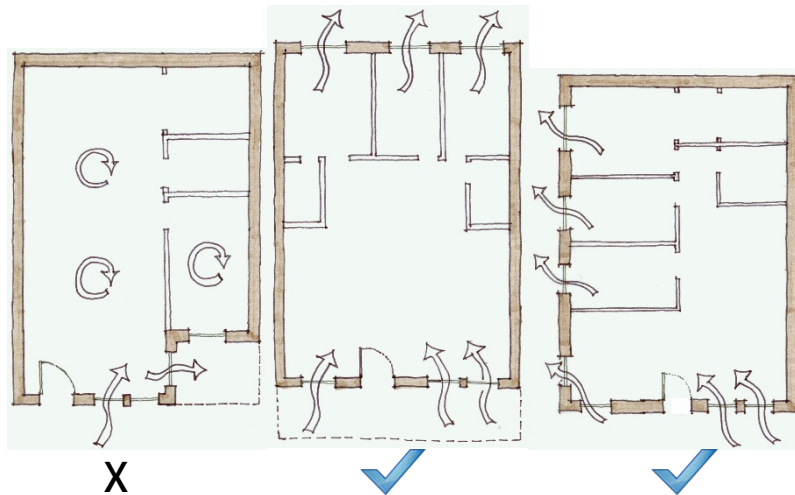
Natural ventilation allows the exchange of stale indoor air with fresh outdoor air and has an impact on the heating and cooling of spaces that is not energy intensive. Natural ventilation is affected by several factors, such as the size, type and placement of windows, ceiling heights, and prevailing winds. Natural ventilation is greatly increased when two windows on two different exposures are opened within a dwelling unit (see Figure 7).

Figure 7: Dwelling Unit with minimum fresh-air displacement despite an open window (left) and dwelling unit with fresh-air displacement with two windows of different orientations (right).



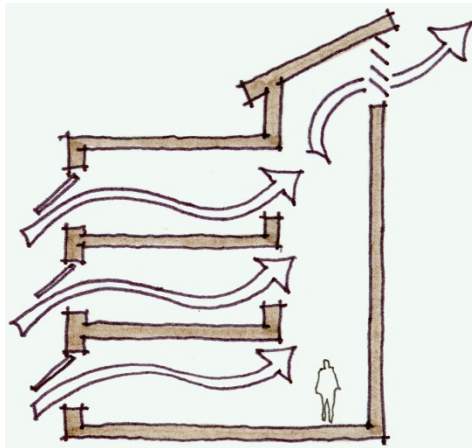
- (a) All dwelling units should have at least two major exposures that face opposite directions or are at right angles to each other (see Figure 8).
- (b) The provision of natural ventilation should work in conjunction with Horizontal Angle of Daylight regulations to ensure that each habitable room is equipped with an openable window.

Figure 8: Dwelling Unit with a single exposure lacks the opportunity for natural displacement of indoor air (left) vs dwelling units with two exposures (right)



- (c) Where a dwelling unit is located directly beneath the roof of a building, the stack effect of internalized air may be exploited by placing openable skylights in the roof (Figure 9).

Figure 9: Stack effect



- (d) Ceiling heights greater than 2.4 m (8 ft.) are encouraged, especially for the floor where the majority of living space is located.
- (e) Employing window types that facilitate air exchange are encouraged. Double-hung windows offer the choice of ventilating a high zone, a low zone or a combination thereof, of interior space. Casement windows, when oriented with prevailing winds, can facilitate air flow from outside into interior spaces (scoop effect).

2.6.3 Light and Ventilation for Courtyard Rowhouses:

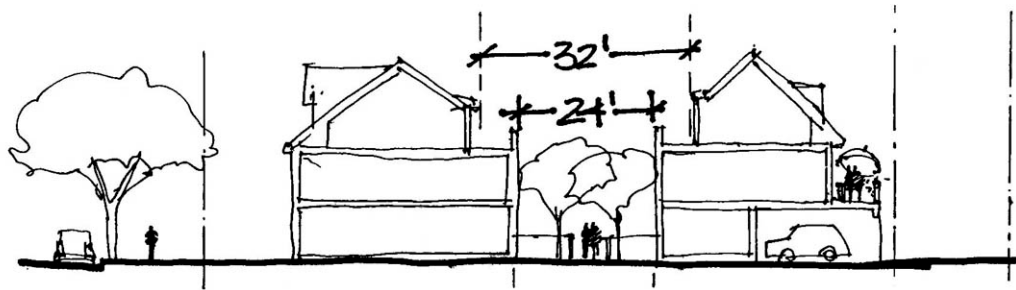
The courtyard rowhouse development scenarios include a central courtyard that plays a role in providing light and ventilation to both rows of units.

- (a) A garden and pedestrian courtyard should be a minimum of 7.3 m (24 ft.) clear width on the first and second levels, and a minimum of 9.8 m (32 ft.) on the third (Figure 10).

- (b) There are no set restrictions on what rooms can face the courtyard, but privacy should be considered.
- (c) Projections permitted into the courtyard should be the same as the allowable projections into yards in Section 10.7 of the Zoning and Development Bylaw, except that:
 - (i) On the first level, entry porches and bay windows may project into the minimum courtyard width;
 - (ii) the minimum distance between projecting bay windows should be 7.3 m (24 ft.) on the second level; and
 - (iii) on the third level, portions of roofs sloping away from the courtyard, balcony rails, pergolas and similar architectural features should also be permitted to project into the courtyard width.
- (d) Some units in courtyard rowhouse buildings may be in close proximity to commercial lanes. Windows to ground level bedrooms in these units should not be located within 3 m (10 ft.) of a commercial lane.

Figure 10. Garden Courtyard, Pedestrian Access Only

Minimum 24' width on first and second levels, increase to 32' on third level



2.8 Noise

The intent of this section is to guarantee an acceptable level of acoustic separation between dwelling units within a development.

- (a) All shared walls between separate dwelling units should strive to achieve an STC rating of 65. This will most likely require a wall thickness of 25 cm (10 in.).
- (b) The overall room layouts and their relationship to adjacent units should be considered. Noise-sensitive rooms, such as bedrooms, should be located adjacent to noise-sensitive rooms in the neighbouring unit.
- (c) Locating building elements such as stairs and closets to act as noise buffers against shared walls is also an effective design solution to minimize noise impact from neighbouring units.
- (d) For structural floors between separate stacked townhouse dwelling units, a high acoustical rating is recommended. Furthermore, other measures designed to dampen the transfer of vibrations should also be provided.
- (e) Details reflecting the method of noise mitigation proposed for the exterior walls should be included with the drawing set as required in section 4.15 of the District Schedule.

2.9 Privacy

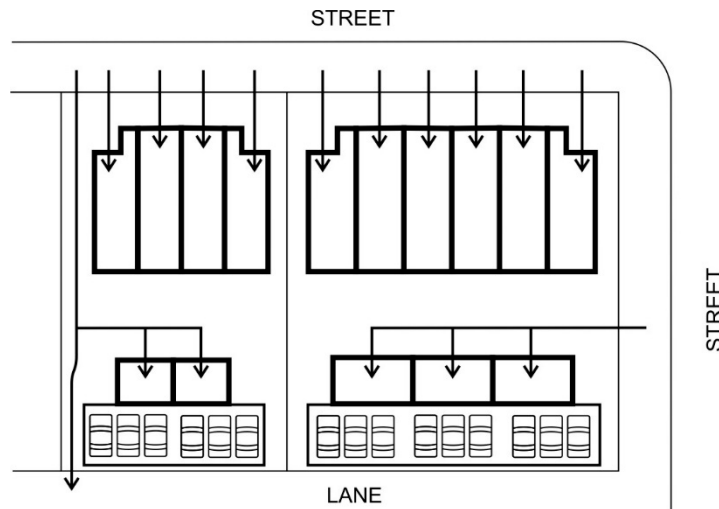
While some overlook of private open space and direct lines of sight into windows may be unavoidable, the intent of these guidelines is to minimize these impacts.

- (a) The location and orientation of windows, decks and balconies in new development should be carefully considered to reduce looking into close-by windows of existing adjacent development.
- (b) Visual privacy for units, balconies and private open space should be enhanced as much as possible through unit planning, landscape screening, and other elements, such as solid railings.
- (c) In stacked townhouse developments, external stairs leading to upper level units should be located close to the entry doors so that people do not need to pass the front doors and windows of other units in order to access their own units.
- (d) Developments without a basement are encouraged to raise the ground floor at least 0.9 m (3 ft.) above the sidewalk to enhance residents' privacy.

2.11 Access and Circulation

- (a) Pedestrian access to the front doors of units should be from the street.
- (b) For courtyard rowhouse units a pedestrian path of at least 3.6 m (12 ft.) wide should be provided to the courtyard from the street. Access to front doors in the rear building should be from the common courtyard. Pedestrian access should also be provided between the lane and the courtyard through the sideyard space (Figure 11).

Figure 11. Access and Circulation for Courtyard Rowhouse



- (c) For proposals with buildings containing dwelling units at the rear of the site, applicants should review specific siting conditions with Building By-law and Fire Prevention staff. Additionally, for courtyard rowhouses, in order to provide fire access to buildings at the rear of sites:
 - (i) Pedestrian access route(s) to buildings at the rear should maintain a minimum building separation of 2.4 m (8 ft.) and clear path of 2.0 m (6.5 ft.); and

- (ii) On lots without lanes, additional requirements for firefighter access, or upgrades to fire protection standards may affect the placement, separation, or construction of buildings.
- (d) Side yards should be designed as pathways to allow access to lock-off units, car parking, bike parking, garbage and recycling located at the rear of the building.
- (e) Vehicular access should be from the lane, where one exists.
 - (i) Sites for multiple dwelling development should be assembled in such a way that vehicular access from a lane is possible.
 - (ii) On sites without lane access, for developments other than a multiple dwelling, access may be from the street to a garage that faces the street if the curb cut is minimized. The manoeuvring area in front of the garage door should be limited to what is necessary to get the vehicles into the garage. An offset, rather than a centred curb cut should be considered in order to consolidate space left for landscaping.
- (f) For freehold rowhouse applications, applicants should consult in advance with the City of Vancouver Engineering Department and third-party utilities to determine lot layouts and access locations that will accommodate the required services and utilities.

2.12 Internal Storage in Stacked Townhouses

The internal design of stacked townhouses should consider the storage needs of families. In-suite storage areas should be provided within individual dwelling units or within storage areas located in underground parking structures.

3 Uses

3.1 Lock-off Units

- (a) The District Schedule permits a “Principal Dwelling with a Lock-off Unit” in multiple dwellings. A lock-off unit is a portion of the main dwelling unit that can be locked off to be used separately or rented out. The intent of allowing lock-off units in a stacked townhouse, courtyard rowhouse or rowhouse is to increase the rental stock in the neighbourhood and to provide the option of having a mortgage helper for the owner of the stacked townhouse, courtyard rowhouse or rowhouse (similar to the option of having a secondary suite in one- and two-family dwellings).
- (b) A lock-off unit is an optional and flexible use, and therefore the lock-off unit must be equipped with an internal access to the main unit.
- (c) A lock-off unit cannot be strata-titled (secured by covenant).
- (d) While lock-off units do not require additional vehicle parking, they do need separate bicycle parking (see Section 4.9).
- (e) In order to ensure safety and acceptable standards of liveability, lock-off units must comply with the **Principal Dwelling Unit with a Lock-off Unit Guidelines**.
- (f) The maximum number of lock-off units in stacked townhouse or courtyard rowhouse developments is one lock-off for every three units.
- (g) The maximum number of lock-off units in rowhouse developments is one lock-off unit for every rowhouse unit.

4 Guidelines Pertaining to Regulations of the Zoning and Development or Parking By-laws

4.2 Frontage

The minimum frontage in the District Schedule for a multiple dwelling with four or more units (not including lock-off units) is 12.8 m (42 ft.). This is the minimum frontage for a stacked townhouse development. Rowhouse developments require a minimum of 14.6 m (48 ft.) for three rowhouses and 18.9 m (62 ft.) for four rowhouses. This width accommodates the minimum width for rowhouse units [4 m (13.3 ft.) between the centre of walls] and a 1.2 m (4 ft.) side yard on either side of the development. A minimum frontage of 18.9 m (62 ft.) is required for courtyard rowhouse developments.

4.3 Height

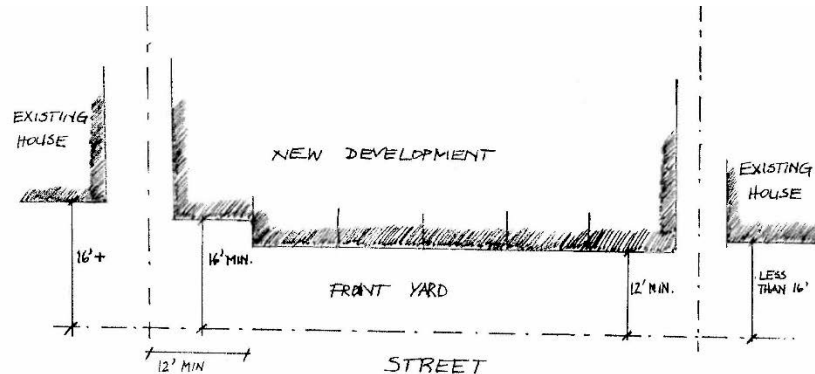
- (a) For rowhouses and courtyard rowhouses, the Director of Planning may permit an increase in building height to 10.7 m (35 ft.) and two-and-a-half storeys. In order to achieve better compatibility with adjacent existing development, the massing and roof forms should be designed to reduce apparent scale (refer to additional guidelines in Section 5.0).
- (b) For stacked townhouses, the Director of Planning may permit an increase in building height to 11.5 m (37.5 ft.) and a partial third storey, provided the partial third storey does not exceed 60% of the storey immediately below. The intention of this height increase is to achieve higher livability for units primarily located at basement level. There are generally two approaches to the design of the third storey:
 - (i) a pitched roof design where some of the floor space does not have full floor-to-ceiling height; or
 - (ii) a flat roof where the top level massing only occupies a portion of the footprint of the floor below and is well set back from the front elevation.
- (c) Infill or principal buildings, other than courtyard rowhouses, located in the rear should be one-and-a-half storeys. The Director of Planning can relax this to a partial second storey, with or without a basement. In considering the partial second storey, the guidelines in Section 5 should be followed. The Director of Planning may relax the 7.7 m (25 ft.) height limit on corner sites and on sloping sites to 9.1 m (30 ft.) where the infill or principal building is more than 4.9 m (16 ft.) from the adjacent property. However, a maximum height of 7.7 m (25 ft.) shall be maintained within 4.9 m (16 ft.) of adjacent properties.
- (d) For courtyard rowhouse buildings located in the rear of the site, the Director of Planning may permit an increase in building height to 9.5 m (31 ft.) and 2 storeys. However, a maximum height of 7.7 m (25 ft.) shall be maintained within 4.9 m (16 ft.) of adjacent properties.
- (e) For courtyard rowhouse buildings located in the rear of the site, adjacent to a commercial lane, the Director of Planning may permit an increase in building height to 10.7 m (35 ft.) and two-and-a-half storeys.

4.4 Front Yard

- (a) For rowhouses on shallow sites less than 27.4 m (90 ft.) in depth and for courtyard rowhouses, variations in the front yard may be as follows (see Figure 13):

- (i) Where the front yard of the existing adjacent building is 4.9 m (16 ft.) or more, the front yard on that side of the proposed development should be 4.9 m (16 ft.) within 3.7 m (12 ft.) of the side property line.
- (ii) Where the front yard of the existing adjacent building is less than 4.9 m (16 ft.), the front yard on that side of the proposed development may be 3.7 m (12 ft.).
- (iii) The front yard of the remainder of the development may be reduced to 3.7 m (12 ft.).

Figure 13: Front yard setbacks depend on the setback of adjacent buildings



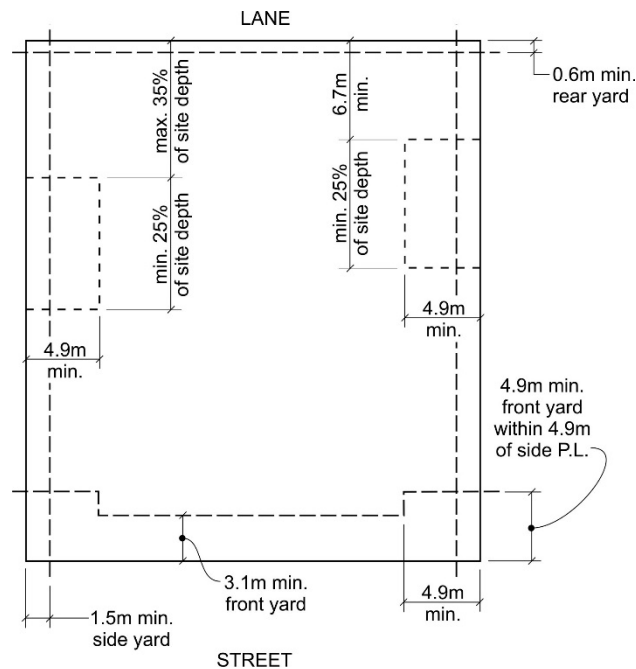
4.5

Side Yard

For courtyard rowhouse developments an additional side yard (see Figure 14) is required to allow a neighbourly relationship to the rear yards of adjacent development:

- (a) An additional side yard with a minimum width of 4.9 m (16 ft.) and a minimum length equal to 25 percent of the site depth should also be provided on each side of the site.
- (b) Each of the side yards should be located so that its rear boundary is not less than 6.7 m (22 ft.), nor more than a distance equal to 35 percent of the site depth, from the ultimate rear property line.
- (c) On the flanking side of corner sites, the enhanced side yard need not be provided. However, if a courtyard rowhouse development is oriented with primary dwelling entries facing the flanking street, the minimum side yard should be increased to 2.4 m (8 ft.).
- (d) The location of the enhanced side yards is flexible in order to allow a variety of development scenarios and need not be located in the same position on both sides.
- (e) Where a site is more than 41 m (135 ft.) deep, the enhanced side yard location may need to be varied (pulled forward) in order to be more compatible with the siting of adjacent development.

Figure 14: Minimum yards diagram for courtyard rowhouse developments



4.6 Rear Yard

A minimum rear yard of 1.8 m (6 ft.) is required for courtyard rowhouse developments to provide space for vehicle access as well as space for planting at the lane.

4.7 Floor Space Ratio (FSR)

Sites that back or flank onto a school or park, corner sites and sites over 51.8 m (170 ft.) deep, qualify for two principal buildings (i.e. two one-family dwellings or a two-family dwelling with a one-family dwelling) or an infill with an existing house. On these sites, the maximum FSR that can be achieved on the site is 0.85 FSR, of which 0.2 FSR can be allocated to the infill or second principal building.

For rowhouses, courtyard rowhouses and stacked townhouses, the maximum FSR achievable is as described in the District Schedule. To achieve the maximum FSR with an acceptable form and siting, it is likely that some floor area will need to be on a third level under a sloped roof, and will not be full height space.

In the RM-7AN District Schedule, some FSR exclusions for parking and bike storage differ significantly from other districts. Please refer to section 4.9 Off-Street Parking and Bicycle Storage for more detail.

The intent of Section 4.7.7 (c) of the RM-7AN District Schedule is to allow and encourage sloped ceilings where they occur directly underneath the structure of a steeply-pitched roof (9:12 pitch or greater). Where such a condition occurs, ceiling heights in excess of 3.7 m (12 ft.) may result for small portions of this space. This means that the space on the top floor below a roof with a steep pitch that is in excess of 3.7 m (12 ft.) will not be counted twice towards overall floor space calculation. The intent of this section is not to permit excessively high ceilings for the lower storeys as this would contribute to the overall external bulk of the building. High ceilings in

excess of 3.7 m (12 ft.) height that are proposed for storeys that are below the top storey, therefore, will be counted twice towards the overall floor space calculation.

4.8 Site Coverage and Impermeability

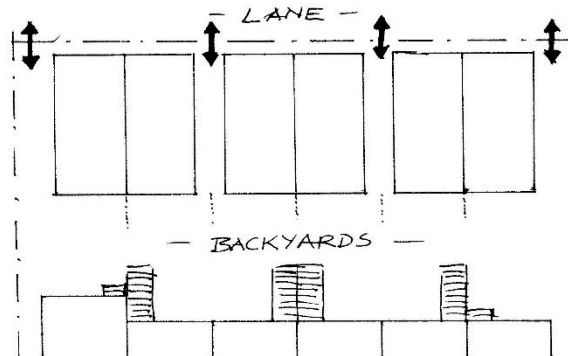
For stacked townhouses and courtyard rowhouses, the Director of Planning can increase the area of impermeable materials to 75% of the site. However, for stacked townhouse, courtyard rowhouses and rowhouse developments with underground parking, a further relaxation may be granted for access to underground parking.

4.9 Off-Street Parking and Bicycle Storage

4.9.1 Parking

- (a) Parking should be located at the rear of the site with access from the lane.
- (b) For rowhouses (*excluding courtyard rowhouses*), the following applies:
 - (i) Each rowhouse unit (not including lock-off units) is required to have one parking space.
 - (ii) Parking can be provided in open parking spaces or garages, however, enclosed parking is counted as part of the allowable floor space. There is no exclusion for above ground parking in accessory buildings for the purpose of FSR calculations.
 - (iii) Underground parking structures are discouraged. However, they are permitted and do receive a standard exclusion for the purpose of FSR calculations (see District Schedule).
 - (iv) To be able to provide one garage per rowhouse, the Director of Planning may increase the total floor area of all accessory buildings to a maximum of 24 m² (258 sq. ft.) for each rowhouse and may increase the proportion of the width of the site that can be occupied by an accessory building to a maximum of 80%.
 - (v) Up to two spaces may be located in one accessory building. Garages with three or more spaces are not permitted. Garages containing one or two parking spaces should be interspersed with areas of open space to break up the massing of the buildings at the lane and provide pedestrian access from the rear yard to the lane (see Figure 15).
 - (vi) Some freehold rowhouse units may be limited to a parking pad, in order to allow sufficient space to accommodate servicing and third-party utilities.
 - (vii) Open parking spaces should be paved with pavers that are permeable to reduce stormwater sewer loads. However, since most permeable pavers lose their permeability over time, parking areas with permeable pavers are counted as impermeable surface.

Figure 15: Parking garages at the lane interspersed by open space for access (for rowhouses)



- (c) For stacked townhouses, the following applies:
 - (i) In developments with three or more stacked townhouses, each stacked townhouse (not including lock-off units) is required to have a minimum of one parking space.
 - (ii) Surface parking is to be provided off the rear lane.
 - (iii) Enclosed parking garages are discouraged and, if proposed, would be counted as part of the allowable floor space. There is, therefore, no exclusion for above ground parking in accessory buildings for the purpose of FSR calculations.
 - (iv) Underground parking structures are permitted and do receive a standard exclusion for the purpose of FSR calculations (see District Schedule).
 - (v) For stacked townhouses on smaller sites where underground parking cannot be provided, the Director of Planning can increase the proportion of the width of the site that can be occupied by accessory buildings to a maximum of 80%.
 - (vi) Open parking spaces should be paved with pavers that are permeable to reduce stormwater sewer loads. However, since most permeable pavers lose their permeability over time, parking areas with permeable pavers are counted as impermeable surface.
- (d) For courtyard rowhouses, the following applies:
 - (i) Each unit, not including lock-off units, is required to have one parking space.
 - (ii) Parking spaces should normally be located underground.
 - (iii) Parking at grade may also be provided under the rear building, accessed directly off the lane. However, to manage building bulk, there is no FSR exclusion for above ground parking in this location.
 - (iv) Open parking spaces should be paved with pavers that are permeable to reduce stormwater sewer loads. However, since most permeable pavers lose their permeability over time, parking areas with permeable pavers are counted as impermeable surface.

4.9.2 Bicycle Storage

- (a) While there is no FSR exclusion for above grade parking in rowhouse, courtyard rowhouse and stacked townhouse developments, the District Schedule specifies that the portion of required bicycle parking located in an accessory building may be excluded from floor area calculations.
- (b) Creative bike parking solutions should be sought, such as under stairs and patios, in crawl spaces and in freestanding boxes.
- (c) In rowhouse developments, bicycle parking for a lock-off unit should be provided in a location separate from the garage for the principal dwelling, such as underneath the external stair or in a bike box located at the rear of the garage or at the entrance to the lock-off unit.
- (d) For each lock-off unit, 0.75 bicycle spaces need to be provided.

4.10 Horizontal Angle of Daylight

The Horizontal Angle of Daylight regulation helps to ensure the liveability within a dwelling unit by requiring a window for each room (except bathrooms and small kitchens). Priority is placed on the major living spaces in which longer periods of time are spent, such as living rooms.

- (a) The relaxation of horizontal angle of daylight requirements provided for in the RM-7AN District Schedule should be used to achieve a minimum standard of natural light access for rooms that are not primary living spaces, such as bedrooms, dens and dining rooms.
- (b) With the exception of lock-off units, the main living space for each dwelling unit should face either a street or a rear yard, or for courtyard rowhouse developments, the interior courtyard. Relaxation of the horizontal angle of daylight cannot be considered for primary living spaces (i.e., living rooms).
- (c) To ensure the liveability of rooms at the basement level, the basement floor should not be more than 0.9 m (3 ft.) below the adjacent exterior grade. A minimum ceiling height of 2.4 m (8 ft.) should be provided.
- (d) In the case of lock-off units, the required distance for an unobstructed view is detailed in the **Principal Dwelling Unit with Lock-Off Unit Guidelines**.

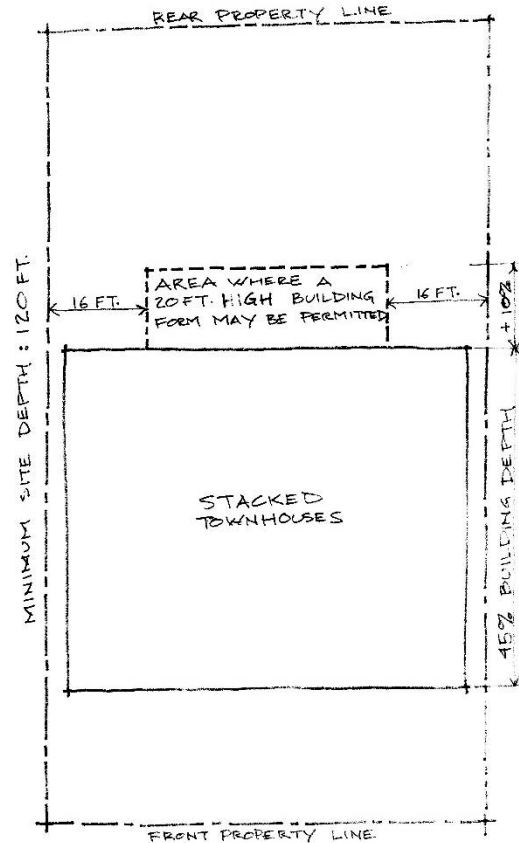
4.16 Building Depth and Building Width

4.16.1 Building Depth

- (a) For all housing types permitted, except courtyard rowhouses, the maximum building depth is 40% of the depth of the site, as specified in the RM-7AN District Schedule.
- (b) For stacked townhouses, the building depth can be increased to 45% of the site depth, provided all units meet livability guidelines for light and ventilation.
- (c) For stacked townhouses on sites that have a minimum depth of 36.6 m (120 ft.), the building depth can be increased to 55% for any portion of the building located at least 4.9 m (16 ft.) from any side property line (See Figure 16). This would allow the middle section of a building to extend further into the back yard, thereby giving more options for window placement and achieve better livability for the units in the centre of the development. The portion of the building that extends beyond 45% building depth cannot be more than 6 m (20 ft.) high. While the increase in building depth improves the internal layout, it will be achieved at

the expense of ground level rear yard space. Therefore, an adequate amount of outdoor space should be provided in the form of a generous porch or balcony.

Figure 16: Increased building depth for middle section of a stacked townhouse building



4.16.2 Building Width

The housing types permitted in the RM-7AN District are larger than the existing single-family dwellings in the neighbourhood. To ensure that new forms of development are compatible in massing with the existing streetscapes, building width should be limited.

- (a) For rowhouses and courtyard rowhouses, the specified building width in the District Schedule can be increased. However, for rowhouse developments on sites with frontages of 40 m (132 ft.) or more, particular care should be taken to avoid monotony in building massing and design. Buildings may be broken up in sections to fit with the variety of the existing streetscape. Other forms of architectural articulation can also be used to reduce the massing of long rowhouse developments.
- (b) For stacked townhouses on sites 24 m (78 ft.) and wider, the maximum building width for a multiple dwelling should be 22 m (72 ft.). Limiting the building width allows more windows on the sides and allows for better cross-ventilation and access to natural light. In some situations, this building width can be slightly larger.

4.17 External Design

4.17.1 Separation between infill and other dwellings

- (a) The minimum separation between an infill located in the rear yard and any other dwelling uses on the site is 4.9 m (16 ft.). This distance can be reduced to assist in the retention of a pre-1940 building, provided all building code and fire separation regulations can be met.

4.17.2 Separation between adjacent multiple dwelling buildings

- (a) Where a development includes two or more rowhouse or stacked townhouse buildings the minimum distance between the exterior side walls of the adjacent buildings should be 2.4 m (7.8 ft.). This minimum separation distance also applies to developments with more than one courtyard rowhouse building at the street, but does not apply to the courtyard between the front and rear buildings which must meet the separation requirements in section 2.6.3.
- (b) For guidance on the dimensions of the internal courtyard in courtyard rowhouse development, refer to 2.6.3.

4.19 Number of Buildings on Site

- (a) For rowhouse and courtyard rowhouse developments on sites over 703 m² (7,560 sq. ft.), more than one multiple dwelling building at the street can be considered where this helps to break up the massing of the rowhouse development and therefore creates a streetscape that is more consistent with the existing streetscape on the block.
- (b) For stacked townhouses, buildings should be limited to 22 m (72 ft.) in width. Therefore, on larger sites, more than one building can be permitted.

5 Architectural Components

Developments are not required to emulate any particular architectural style. Regardless of style, a high level of design excellence is expected to participate in the enrichment of the streetscape. All walls or portions thereof that are visible from the street should include a cohesive and well-scaled composition of cladding materials, trim, fenestration and relief elements such as bays, recesses, porches, balconies which provide shadow play, wall texture, rain protection and human scale.

5.1 Roof and Massing

5.1.1 Roofs

The orientation, form and massing of the roof is limited by the desire to locate livable space within and the requirement to limit the amount of the building mass as seen from the street. The following guidelines are intended to assist with a neighbourly transition between new development and existing one-family dwellings:

- (a) The maximum allowable roof height as specified in the District Schedule may only be attained as a localized point within the development, rather than as a continuous height around the perimeter of the building.
- (b) Upper floor massing should be reduced by:
 - (i) Substantially containing the top floor in a steeply pitched roof (see Figure 17). For sloped roofs, the maximum height refers to the height of the roof peak, while the eaves of the roof should be significantly lower; or
 - (ii) For a flat or shallow pitch roof development, by significantly setting back any building mass located higher than 8.0 m (26 ft.) (see Figure 18). This setback should arrive at an overall visual effect from the street and the rear yard that is comparable to that of a pitched roof building.
- (c) The main roof should spring from somewhere between the upper floor level and approximately 1.2 m (4 ft.) above it. It is expected that some of the allowable floor space will be between 1.2 m (4 ft.) and 2.4 m (8 ft.) in height in most developments. In general, the eave height of a sloped roof or the second-storey cornice line on flat roof buildings should not be higher than 7.9 m (26 ft.).
- (d) Secondary roof forms and dormers should be clearly subordinate to the main form in size and number. They may vary in the pitch of the main roof.
- (e) Roof top terraces should be set back from the edge to minimize the view into adjacent yards.

Figure 17: Illustration of upper floor contained in pitched roof

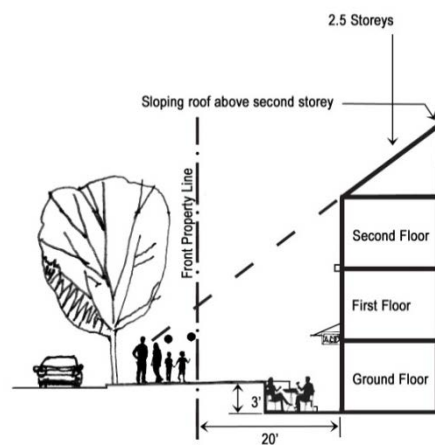
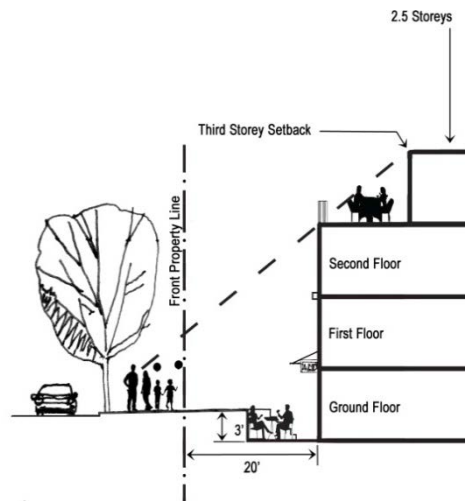


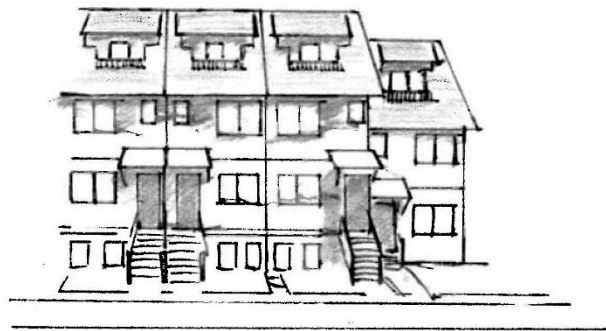
Figure 18: Illustration of upper floor setback for flat or shallow pitched roofs



5.1.2 Massing of Rowhouses and Courtyard Rowhouses on the Street

- (a) Rowhouses and courtyard rowhouses should visually emphasize individual units. While many successful rowhouse developments rely on simple repetition of identical or near identical side-by-side units, the boundaries of each unit should be obvious and clearly expressed on the street façade. End units should be reduced in massing whenever possible (see Figure 19). This can be achieved by reducing the overall height of the units (e.g. through eliminating the top half storey or the basement) or by sloping the roof towards the adjacent development. End units can also be set back further from the front property line to reduce their massing.

Figure 19: Illustration of reduced massing of end unit



- (b) The apparent scale should furthermore be reduced by other aspects, such as floor to floor heights, horizontal

5.1.3 Massing of Infill and Courtyard Rowhouses on the Lane

- (a) Infill buildings and courtyard rowhouses at the rear of the site should be designed to reduce apparent massing adjacent to the lane and neighbouring properties.
- (b) The form of buildings at the lane should minimize shadowing impacts on adjacent residential properties.
- (c) Consideration should be given to stepping back the upper floor along the lane to reduce the massing along this exposure. Where a building nears the rear yard of an adjacent residential property, the massing should be further reduced by

increased setbacks and/or bringing roof lines down to between the first and second level.

5.3 Entrances, Stairs and Porches

The intent of these guidelines is to maximize active street life by enlivening the streetscape with residents' use of front entries and porches and front facing yards.

5.3.1 Entrances

- (a) Each street fronting principal dwelling unit should have one clearly expressed main entrance area facing the street. In some instances, the Director of Planning may permit a main entry door located off the rear elevation of a stacked townhouse building.
- (b) Other entrances, such as lock-off units, should be located on the front façade wherever possible. However, clarity should be maintained with respect to which is the main entrance. These entrances may include French doors and sliding glass doors.
- (c) Courtyard rowhouse units in the rear building should have main entrances oriented to the internal courtyard. On a corner or double-fronting site, all elevations which face a street should be fully designed and detailed.
- (d) Pedestrian access to the main entries should be clearly visible from the street. Pedestrian pathways to units facing the side yards or rear yards should be clearly visible for wayfinding purposes (such as through lighting, addressing and trellises).

5.3.2 Porches

- (a) For stacked townhouses, all dwelling units, except for lock-off units, should be designed with a major private outdoor space on the principal street-facing facade in the form of a front porch, a front patio, a balcony or a roof deck.
- (b) On rowhouse and courtyard rowhouse developments, each unit should have an entry porch, which can range from a small stoop area to a large, more usable porch.

5.3.3 Stairs

- (a) For courtyard rowhouses and rowhouses, stairs to upper levels above the main floor must be accommodated within the internal space of the house or unit.
- (b) In stacked townhouses stairs play an important role as places for informal social interaction.
- (c) Steps are allowed in required side yards where they are designed to facilitate grade changes from the front to the rear of the site.

5.4 Windows and Skylights

Window placement and design play important roles in the overall visual composition of a building. Windows are also significant for the liveability of a unit because they let in natural light and air.

- (a) When a window or skylight is the only source for natural light for a room, it should also be possible to open it to guarantee natural ventilation throughout the dwelling.

5.5 Balconies and Decks

- (a) Balconies and decks should be designed as integral parts of the building massing and façade composition.
- (b) In order to minimize overlook of neighbouring properties, projection of balconies located above the first floor should be limited.
- (c) Windscreens on roof top terraces should be transparent so that their visibility from the street and adjacent properties is minimized.

5.6 Exterior Walls and Finishing

The finishing materials of new development should be durable. High-quality materials that last longer are more sustainable and create less waste. Materials that perform well over a long period of time also increase the affordability of the dwelling.

In addition to durability, the following guidelines should be considered when choosing exterior materials:

- (a) Materials should be used in a way that is true to their nature. For example, stone facing should be used as a foundation element, and as the base of columns, but should not be used as a facing on upper levels with no clear means of support below.
- (b) In general, the same materials should be used in consistent proportions on all facades and not just on the street face. Materials should carry around corners and terminate at logical points to avoid appearing as a thin veneer or ‘false front’.
- (c) All sides of a building that extend in front of an adjacent building are visible from the public realm and warrant appropriate design. For corner buildings, the side façade should be articulated and have sufficient windows and detailing, comparable to the front façade.
- (d) Large blank walls should be avoided whenever possible. Window openings, detailing, materials, colour, wall articulation and landscaping should be used to enliven them and reduce their scale.
- (e) Exposed foundations should be limited to 30 cm (12 in.).
- (f) Garage doors should be single width.

6 Lane Frontage

For courtyard rowhouse developments, the lane will become a focus of development, and in effect, an exposure that is as important the streetscape. The lanescape should be a visually interesting experience for passersby and a pleasant outlook for residences near the lane, while at the same time accommodating garage doors, parking spaces, and garbage and recycling areas:

- (a) Insets, projections and overhangs should be used to lend interest to the lane fronting façade, and to give greater emphasis to the presence of living space over car places.
- (b) Garage doors should be high quality.
- (c) Projections and overhangs such as arbours over the garage add depth to the façade, create a shadow line, and potentially create places for planting to enrich the lanescape.
- (d) Garbage areas should be designed as integral part of the building, or as well defined elements in the landscape.

7 Open Space

The provision of open space should be part of an overall site development and landscape plan and should take into consideration general site circulation patterns, including parking, existing landscape features, sun access, privacy and usability.

- (a) In rowhouse developments, open space should be organized in a way that every rowhouse unit has its own front and rear yard.
- (b) For courtyard rowhouse developments, semi-private space or garden/entry courtyards in the centre of the site, should be designed:
 - (i) as a focus of development and an organizing element, not as ‘leftover’ space.
 - (ii) as a primary outlook and entrance for units in the middle and rear sections of a site.
 - (iii) to provide sufficient distance, screening, landscape, and outlook considerations for the mutual comfort of dwellings overlooking the space.
- (c) For stacked townhouses:
 - (i) a ground-level yard is preferable, particularly for larger units;
 - (ii) alternatively, a spacious balcony or deck with a minimum depth of 1.8 m (6 ft.) should be provided;
 - (iii) units that could accommodate families with children (2 bedrooms or larger) should provide open space that is suitable for children.
- (d) For each lock-off unit, a minimum area of 1.8 m² (19 sq. ft.) should be provided immediately adjacent to and accessible from the unit.
- (e) Roof decks add considerably to the amenity of any unit. Care should be taken to avoid direct sightlines to neighbouring windows, balconies and yards. Roof decks should be well-integrated into the overall form, such as cut into sloped roofs in a way that does not upset roof geometry.

8 Landscaping

- (a) Existing trees should be kept and new trees introduced wherever possible.
- (b) Patio areas in the front yard should be screened with planting.
- (c) Visually undesirable building features, such as exposed foundation or utilities, should be screened with landscaping.
- (d) The front and back boulevard should be landscaped as green space. At a minimum, they should be retained as grassed areas, but more intense planting is encouraged (please refer to **Guidelines for Planting City Boulevards**). The space between the sidewalk and the front property line should receive similar treatment.
- (e) In general, the Zoning & Development By-law fencing height limit of 1.2 m (4 ft.) in front yards, and 1.8 m (6 ft.) in rear and side yards should be respected. However, exceptions may be made for entry arbours, and trellises or screening elements immediately adjacent to patio or deck areas. Over height elements in the front yard should assist with the definition of outdoor space but should not prevent all views or glimpses of the outdoor space from the street. Any over height element should be largely transparent and limited in extent.
- (f) Where walls or fences are provided, they should be combined with soft landscape to provide visual depth, screening and layering.

- (g) Landscaping in semi-private common spaces in courtyard rowhouse developments should be designed to provide screening and filtering of views. Planting larger caliper trees is particularly necessary in these locations.
- (h) Where courtyard rowhouses are located at the lane, every opportunity to enhance the lanescape with landscaping should be taken. This includes:
 - (i) Entry gates and arbors over pedestrian entrances.
 - (ii) Arbors over driveway entrances.
 - (iii) Planted areas or planter boxes between garage doors.
 - (iv) Trellised areas along the lane façade, between and above garage entries, to enable “vertical greening” with vines.
 - (v) Planters overhanging the lane on balconies and outside the windows of dwellings on upper levels.
 - (vi) Planting of trees near the lane where possible.

9 Garbage and Recycling

- (a) For strata developments with nine or more units and courtyard rowhouse developments (not including lock-off units) appropriate areas for group garbage and recycling bins directly off the lane should be provided.
- (b) For strata developments with less than nine units, not including lock-off units, and for rowhouses, appropriate areas for garbage container and blue box pick-up at the lane should be provided.

The document, Garbage and Recycling Storage Facility Supplement, provides detailed information on the number of containers required and dimensions and specifications of commonly used storage containers. It is available online at: <http://vancouver.ca/home-property-development/garbage-and-recycling-storage-facilities.aspx>. or at the Enquiry Centre, 1st floor, 515 West 10th Avenue.