

SPATIAL SEPARATION REQUIREMENTS

This document explains the requirements of section 9.10.15 and how they should be addressed when completing your proposed building plans.

The BC Building Code uses different criteria to establish spatial separation requirements for unsprinklered buildings, depending on the response time of a local fire department. Where the response time exceeds 10 minutes in 10% or more of the calls, different limiting distance requirements apply. In the Town of Ladysmith, the response times consistently exceed 10 minutes in all areas. Therefore, additional limiting distance requirements apply.

BC Building Code Requirements

The following definitions in the BC Building Code apply to spatial separation requirements:

Limiting distance means the distance from an exposing building face to a property line, the centre line of a street, lane or public thoroughfare, or to an imaginary line between 2 buildings or fire compartments on the same property, measured at right angles to the exposing building face.

Exposing building face means that part of the exterior wall of a building that faces one direction and is located between ground level and the ceiling of its top storey or, where a building is divided into fire compartments, the exterior wall of a fire compartment that faces one direction. In some circumstances, a roof is considered a wall. See 9.10.1.1 (1).

Unprotected opening (as applying to exposing building face) means a doorway, window or opening other than one equipped with a closure having the required fire-protection rating, or any part of a wall forming part of the exposing building face that has a fire-resistance rating less than that required for the exposing building face.

BC Building Code regulations for limiting distances, fire department response, glazed openings and construction of exposing building face of houses can be found in section 9.10.15 (1) – (5)

All items addressed in sections 9.10.15 (1) – (5) are required to be shown on your submitted building plans.

9.10.15.2 Area and Location of Exposing Building Face

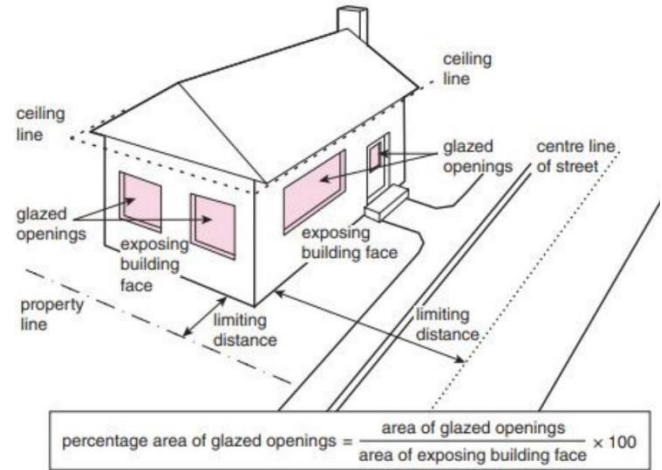
This section provides information on how to calculate the area of an exposed building face. Sentences (2) to (5) provide options for additional glazed openings if the exposed building face is staggered or skewed or the lot configuration is slanted/skewed/irregular; but also puts limits on the spacing of groups of windows depending on the limiting distance. If permitted, the wall can be portioned into sections and a varied percentage of glazed openings based on the limiting distance of that portion. **See note A-9.10.15.4 (2)**



9.10.15.3 Limiting Distance and Fire Department Response

1) Except for the purpose of applying Sentences 9.10.15.2.(2), 9.10.15.4.(3) and 9.10.15.5.(13), a limiting distance equal to half the actual limiting distance shall be used as input to the requirements of this Subsection, where:

- a) the time from receipt of notification of a fire by the fire department until the first fire department vehicle arrives at the building exceeds 10 min in 10% or more of all calls to the building, and;
- b) any storey in the building is not sprinklered.



In the Town of Ladysmith, if the building is not sprinklered, the actual limiting distance must be halved and the application of subsequent requirements applied as if the building was closer to the property line than it actually is.

9.10.15.4 Glazed Openings in Exposing Building Face

- 1) Except as provided in Sentence (6), the maximum aggregate area of glazed openings in an exposing building face shall:
- a) conform to Table 9.10.15.4.,
 - b) conform to Subsection 3.2.3., or
 - c) where the limiting distance is not less than 1.2 m, be equal to or less than the limiting distance squared.

There are 3 options available to calculate the maximum allowable aggregate area of glazed openings. In most cases, Table 9.10.15.4 is utilized, however all options can be considered and the least restrictive applied.

Table 9.10.15.4.
Maximum Area of Glazed Openings in Exterior Walls of Houses
 Forming Part of Sentences 9.10.15.4.(1) and (2)

Maximum Total Area of Exposing Building Face, m ²	Maximum Aggregate Area of Glazed Openings, % of Exposing Building Face Area											
	Limiting Distance, m											
	Less than 1.2	1.2	1.5	2.0	4.0	6.0	8.0	10.0	12.0	16.0	20.0	25.0
30	0	7	9	12	39	88	100	-	-	-	-	-
40	0	7	8	11	32	69	100	-	-	-	-	-
50	0	7	8	10	28	57	100	-	-	-	-	-
100	0	7	8	9	18	34	56	84	100	-	-	-
Over 100	0	7	7	8	12	19	28	40	55	92	100	-



EXAMPLES: CALCULATION OF GLAZED OPENINGS in EXPOSED BUILDING FACE (using Table 9.10.15.4)

- Exposed Building Face = 50m² Limiting Distance : 1.5m halved to account for FR Time = 0.75m
.75m is less than 1.2m therefore % of glazed openings permitted = **0%**
- Exposed Building Face = 50m² Limiting Distance : 2.4m halved to account for FR Time = 1.2m
1.2m is equal to 1.2m therefore % of glazed openings permitted = **7% (50 x 0.07 = 3.5m²)**
- Exposed Building Face = 50m² Limiting Distance : 3.0m halved to account for FR Time = 1.5m
1.5m Limiting Distance permits a % of glazed openings at = **8% (50 x 0.08 = 4.0m²)**

The above calculations of glazed openings in exposed building face are required to be shown for each applicable building face on your submitted building plans.

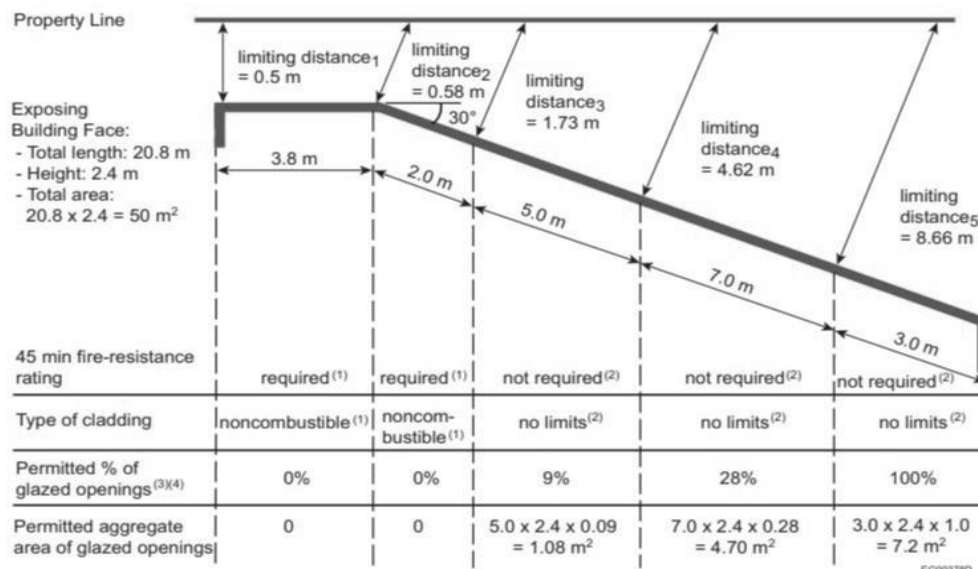
9.10.15.4.(6) Omission of Limits to Exposed Building Face Glazed Openings

A garage or shop or other accessory building placed on the same property as a dwelling is not subject to spatial separation requirements – however – **important to note:** should an accessory building contain a suite/living space, spatial separation calculations must be considered.

9.10.15.5. Construction of Exposing Building Face of Houses

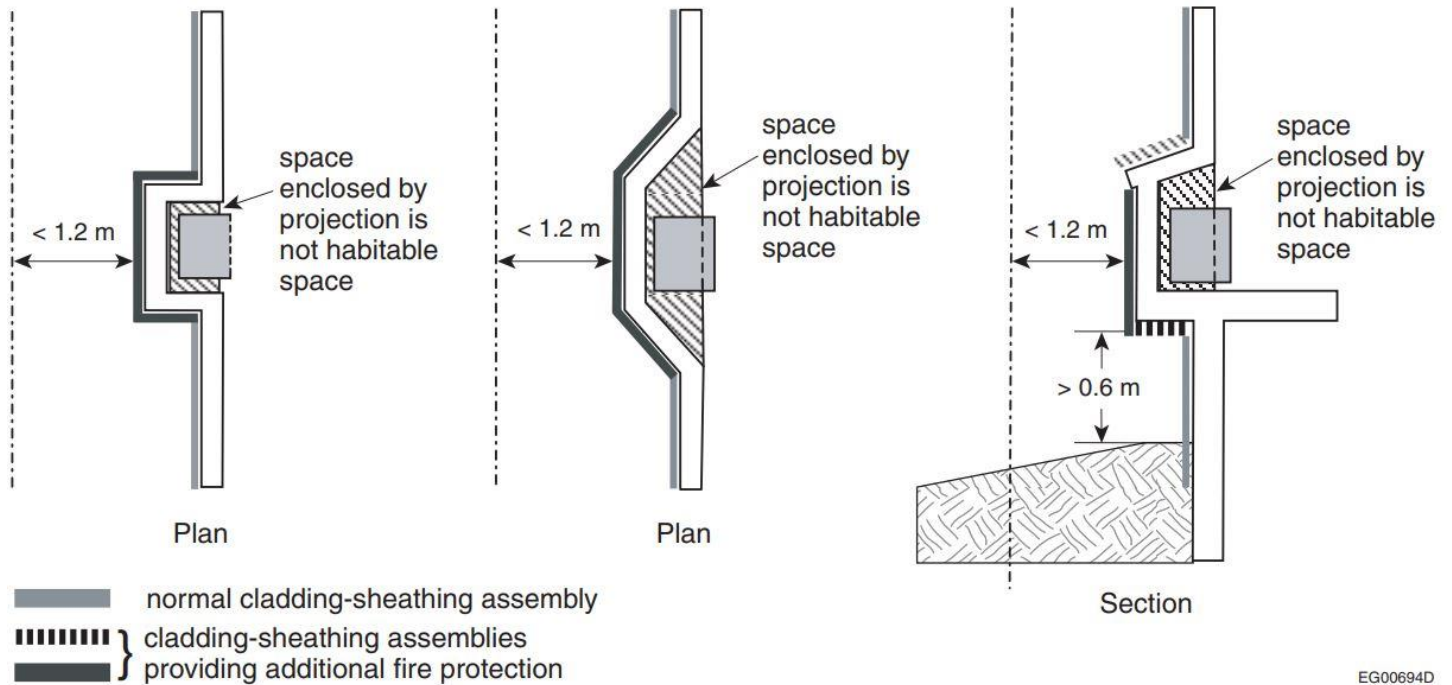
Limiting Distance	*Exposed Building Face	Other Considerations
< 0.6m	Fire Resistance Rating not less than 45 minutes	Cladding to be metal or non-combustible; see the BC Building Code for installation requirements
≥ 0.6m and < 1.2m	Fire Resistance Rating not less than 45 minutes	Cladding to be metal or non-combustible; can include some wood siding products – see BC Building Code for installation requirements
≥ 1.2m	No limits	No limits

*includes exterior walls located above the exposing building face that enclose an attic or roof space.



9.10.15.5 (7) Combustible Projections on an Exposing Building Face

The construction of projections from walls such as fireplaces or chimney chases that have a limiting distance of 1.2m or less are to be constructed in the same way as the exposing wall within 1.2m (as above) If the underside of the projection is more than 0.6m above finished ground level, it must comply with the protective requirements of 9.10.15.5.(7) b) i) - vi)



9.10.15.5 (8) – (9) Projection of Soffits above Exposing Building Faces

(8) Where the exposing building face has a limiting distance of not more than 0.45 m, projecting roof soffits shall not be constructed above the exposing building face.

(9) Where the exposing building face has a limiting distance of more than 0.45 m, the face of roof soffits shall not project to less than 0.45 m from the property line.

9.10.15.5 (10) Soffits facing a Street, Lane or Public Thoroughfare

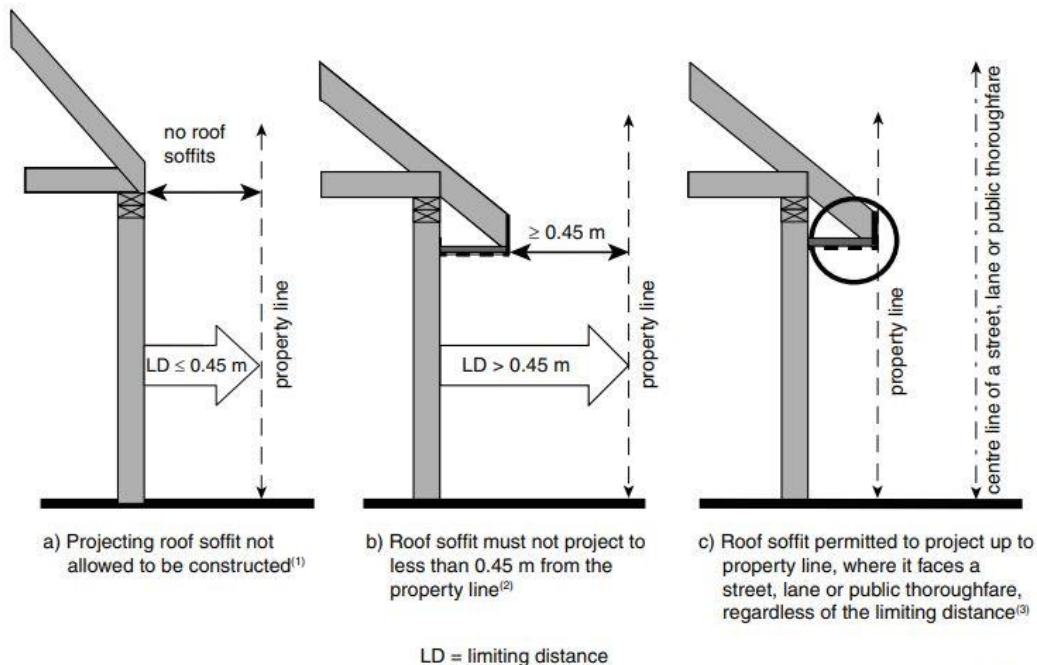
The face of a roof soffit is permitted to project to the property line, where it faces a street, lane or public thoroughfare.



9.10.15.5 (11) Projection of Soffits to less than 1.2m

Where roof soffits project to less than 1.2 m from the property line, the centre line of a lane or public thoroughfare, or an imaginary line between two buildings or fire compartments on the same property, they shall:

- a) have no openings, and
- b) be protected by
 - i) not less than 0.38 mm thick sheet steel,
 - ii) unvented aluminum conforming to CAN/CGSB-93.2-M, "Prefinished Aluminum Siding, Soffits, and Fascia, for Residential Use,"
 - iii) not less than 12.7 mm thick gypsum soffit board or gypsum ceiling board installed according to CSA A82.31-M, "Gypsum Board Application,"
 - iv) not less than 11 mm thick plywood,
 - v) not less than 12.5 mm thick OSB or waferboard, or
 - vi) not less than 11 mm thick lumber.



Please note : This information was prepared to provide convenient information, and should not be considered a replacement for reviewing the bylaw or associated legal documents. If there is a contradiction between this guide and relevant municipal bylaws and/or applicable codes, please refer to the bylaws and/or codes for legal authority.