



BOABC – 2025 BCBC Lunch and Learn Start of Year– Rooftop Occupancies

January 16, 2025

Hosted by: Ken Kunka, AScT BCQ

Promoting Building Safety and Professionalism



Overview

Information presented today does not directly represent the opinions of the Building Officials Association of BC (BOABC) or Manufactured Housing Association of BC (MHABC)

This presentation is conceptual and for informal educational purposes only. The presenters and association takes no responsibility for application of any concepts or interpretations in this presentation to specific projects.

The slides must not be considered complete or exhaustive. Code provisions have been generally represented and may not reflect all exceptions.



Rules of the Room



- Registration will be tracked
- Presentation is not recorded but PowerPoint will be posted
- Please use raise hand icon if you have a question or comment
- PUT IT in the CHAT
- Please mute your microphone
- You may need to turn off your camera
- Please follow up by email if you have specific question or example to share with the membership.
 - kkunka@boabc.org



Poll Questions

Poll Question #1

What is your level of BOABC Qualification?

- Level 01 Building = 25%
- Level 02 Building = 17%
- Level 03 Building = 52%
- Level 01 Plumbing = 2%
- Level 02 Plumbing = 3%
- Other = 2%
 - Retired, professional, etc

Poll Question #2

What region are you from?

- Lower Mainland = 63%
- South Central Interior = 15%
- Kootenay = 7%
- Northwest = 0
- Central North Interior = 0
- Vancouver Island North = 5%
- Vancouver Island South = 10%



January 16th – Start of Year Rooftop (roof-top) Occupancies

Today's Session

- What's New Update and Training
- Members Questions
- Rooftop Occupancies
 - Background
 - Occupant
 - Building Height
 - Means of Egress
 - Case Example
 - Other Code References
- Q & A



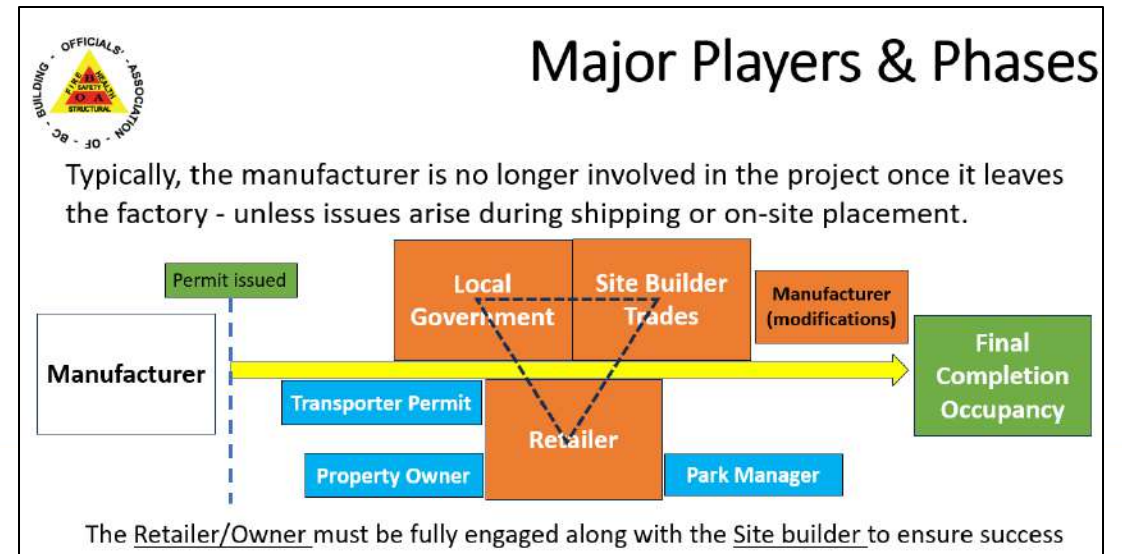
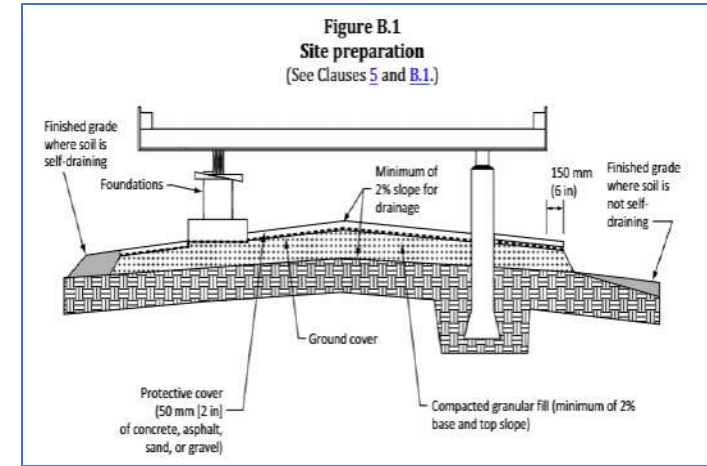
Education Focus – All Levels



December – Manufactures Housing


Recap – Dec 12, 2024

- What's New Update and Training
- Year End House Keeping
- Appeals and Interpretations
- Manufactured Housing
 - Background
 - Code References
 - Standards – Z240MH, A277, and Z250
 - Permit Application & Inspection Checklists





December – Poll Question Results



Poll Questions


Poll Question #1
What is your level of BOABC Qualification?

- Level 01 Building = 25%
- Level 02 Building = 11%
- Level 03 Building = 29%
- Level 01 Plumbing = 25%
- Level 02 Plumbing = 8%
- Other = 2%
 - Retired, professional, etc

Poll Question #2
What region are you from?

- Lower Mainland = 38%
- South Central Interior = 13%
- Kootenay = 13%
- **Northwest = 0% (where are you?)**
- Central North Interior = 8%
- Vancouver Island North = 20%
- Vancouver Island South = 10%

POLL QUESTIONS



Poll Questions

Poll Question #4
Have you plan checked and or inspected a Z240MH project.

- Yes = 65%
- No = 35%


Poll Question #5
Have you plan checked and or inspected a A277 project?

- Yes = 63%
- No = 37%

Poll Question #6
Have you plan checked and or monitored a multi-modular residential project?

- Yes = 33%
- No = 67%

POLL QUESTIONS



Poll - Forum Questions

Poll Question #7
Pre-Approved Manufactured Homes? Has your local jurisdiction discussed fast tracking "prefab factory-built designs"?


- **Yes = 6%**
- **No = 82%**
- **Not sure = 10%**

Hi, I was reading this NDP article from late September and wondering if any communities have been directly involved in changing processes for speeding up manufactured home permits? <https://www.bcmdb.ca/releases/more-homes-built-faster-ehv-grow-factory-home-construction>

David Eby and the BC NDP will fast-track the growth of B.C.'s factory-built home construction industry by:

- Reducing red tape and letting the industry get on with the job. Working with municipalities, First Nations, and the industry, we'll create a province-wide framework to put every municipality on the same playing field – so builders know what's required in every community.
- Pre-approving a set of construction designs. Just as we've done with site construction, we'll approve ready-to-use designs to reduce the time it takes to get homes built – without the need for lengthy permitting processes.
- Boosting skills training. In partnership with the industry leaders, we'll work together to develop the skills training needed for this kind of home construction, creating jobs and opportunities in more communities.

POLL QUESTIONS



Poll - Forum Questions


Poll Question #8
CSA Z241 Park Models
Are they allowed in your jurisdiction:

- **Yes = 15%**
- **No = 69%**
- **Special Cases = 15%**
 - Example - Only for seasonal camps

How are jurisdictions fielding requests to place Park Models on permanent foundations? Do Park models have a limit of time they can be in one location? Looking for any and all information of how municipalities are governing these structures.

Thank you!

POLL QUESTIONS




Poll - Forum Questions

Poll Question #9
Z240MH – Step Code compliance
Is it required for Z240MH units?

- **Yes = 2%**
- **No = 73%**
- **Not sure = 24%**

I'm getting push-back from Z240MH manufacturers.
Is there anyone out there asking for the Pre-construction Step Code Compliance report?

POLL QUESTIONS



Poll - Member Question

Background
Who is responsible for the building when in transit? A building may meet the requirement for air tightness at the factory but once it has traveled the highway, damage and cracking may occur which could result in noncompliant air tightness which will have to be corrected.

Does the A277 standard account for damage incurred while in transit?

Poll Question #10
When should a blower door test done to a factory constructed building? (A277)

- **in the factory = 13%**
- **on site = 37%**
- **Both = 46%**
- **Not at all = 2%**

POLL QUESTIONS



Information Bulletin
Building and Safety Standards Branch
PO Box 9844 Str Prox Govt
Victoria BC V8W 9T2
Email: building_safety@gov.bc.ca
Website: www.gov.bc.ca/buildingcode

No. B24-10-R
September 20, 2024

Application of the 2024 BC Building Code

This bulletin provides information about changes to the effective date for seismic and adaptable dwelling unit requirements in the British Columbia Building Code (BC Building Code) 2024¹. Information in Bulletins [B24-01-R](#) Adaptable Dwellings Transition and [B24-02-R](#) Seismic Design Delay have been updated to reflect the extended effective date.

The BC Building Code 2024 came into effect for projects with building permits applied for after March 8, 2024; however, seismic and adaptable dwelling unit provisions in the BC Building Code 2018 edition remained in effect for projects with building permits applied **for before March 10, 2025**. Previously, projects with building permits applied for **on or after March 10, 2025**, would need to comply with the entirety of the BC Building Code 2024 including the seismic and adaptable dwelling unit requirements.

Adaptable dwelling unit requirements apply to select residential buildings. More information on adaptable dwelling units is available in [Bulletin B24-09-R2](#). All buildings must consider seismic loads; however, these loads differ from location to location and can impact buildings differently based on their design. More information on seismic requirements will be provided in a bulletin expected soon.

Seismic and adaptable dwelling unit requirements apply to projects as follows:

Status Quo:

If you apply for a building permit **before March 10, 2025**, the seismic and adaptable dwelling unit requirements in the BC Building Code 2018 apply to the building project. Projects for which building permits are applied for **on or after March 10, 2025**, are subject to the seismic and adaptable dwelling unit requirements in the BC Building Code 2024.

If no building permit is required and work substantially begins **before March 10, 2025**, then the seismic and adaptable dwelling unit requirements in the BC Building Code 2018 apply to the building project. Projects for which no building permit is required,

¹ Seismic requirements are found in Subsection 4.1.8., Section 9.23., and Appendix C of Division B. Adaptable dwelling unit requirements are found in Subsection 3.8.5. of Division B.

The contents of this Bulletin are not intended to be provided as legal advice and should not be relied upon as legal advice. The Building and Safety Standards Branch does not enforce compliance with the British Columbia Building Code. Local authorities are authorized to enforce the British Columbia Building Code through the Local Government Act and the Community Charter.

Don't forget – Code Update

What dates do I need to remember?

November 24, 2023 Adoption of the BC Building Code 2024.

March 8, 2024 Most of the BC Building Code 2024 came into force for projects for which building permits were applied for on or after this date. Seismic and adaptable requirements in the BC Building Code 2018 edition continued to remain in effect.

This is the cut-off date that the drawings described in the new options must have been prepared by (prepared before March 8, 2024) as a condition to apply the new options.

Drawings prepared after this date with the intention of applying for a building permit **on or after March 10, 2025**, shall comply with the entirety of the BC Building Code 2024.

March 10, 2025 The entirety of the BC Building Code 2024 comes into effect for projects for which building permits are applied for on or after this date – ***unless one of the new options is applied.***

(For projects that are not applying one of the new options, the entirety of the BC Building Code 2024 applies.)

March 8, 2027 Any projects applying the new options must apply for a building permit before this date.

Any projects applying for a building permit on or after this date must comply with the entirety of the BC Building Code 2024.

[Link - b24-10-r application of the 2024 bc building code.pdf](#)

Don't Forget
BOABC
Conference
2025

2025 Conference



Save the Date: 2025 BOABC Conference

May 11 to 14, 2025

Delta Hotels Grand Okanagan Resort
Kelowna, BC

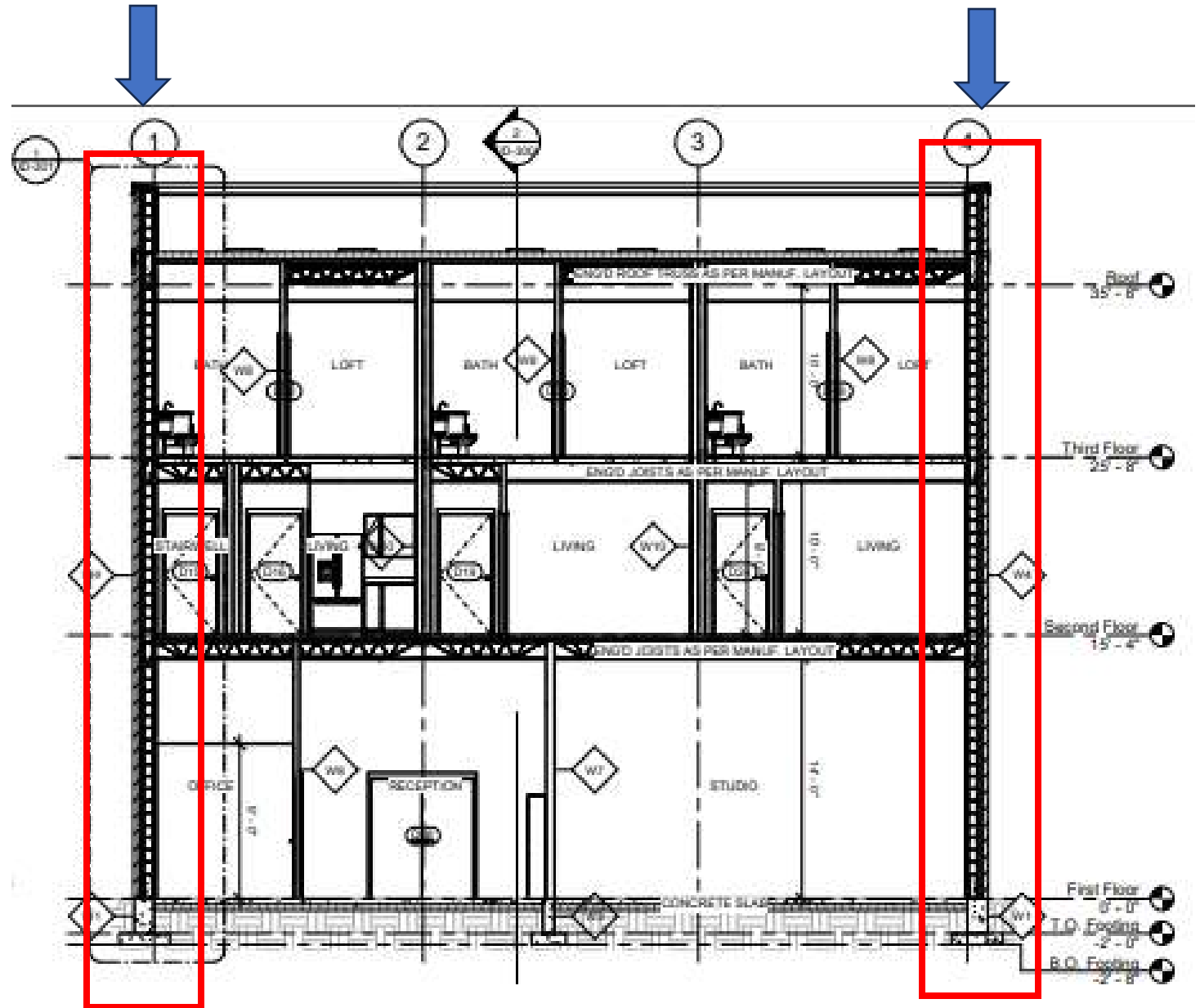
Members Question

Exterior wall as a Firewall?

Proposed project of a 3-storey mixed use (commercial and residential building) under Part 9 classification.

- The building goes up to the property line but not over (zero limiting distance).

Question - Do the exterior walls at PL need to be designed as a fire wall with parapet heights?





Members Question

Code References

Table 9.10.14.5.-A
Minimum Construction Requirements for Exposing Building Faces
 Forming Part of Sentence 9.10.14.5.(1)

Occupancy Classification of Building or Fire Compartment	Maximum Area of Unprotected Openings Permitted, % of Exposing Building Face Area	Minimum Required Fire- Resistance Rating	Type of Construction Required	Type of Cladding Required
Residential, business and personal services, and low-hazard industrial	0 to 10	1 h	Noncombustible	Noncombustible
	> 10 to 25	1 h	Combustible or noncombustible	Noncombustible
	> 25 to 50	45 min	Combustible or noncombustible	Noncombustible
	> 50 to < 100	45 min	Combustible or noncombustible	Combustible or noncombustible
Mercantile and medium- hazard industrial	0 to 10	2 h	Noncombustible	Noncombustible
	> 10 to 25	2 h	Combustible or noncombustible	Noncombustible
	> 25 to 50	1 h	Combustible or noncombustible	Noncombustible
	> 50 to < 100	1 h	Combustible or noncombustible	Combustible or noncombustible

9.10.11. Firewalls

9.10.11.1. Required Firewalls

1) Except as provided in Article 9.10.11.2., a *party wall* on a property line shall be constructed as a *firewall*. (See Note A-3.2.3.4.(1).)

9.10.11.2. Firewalls Not Required

Duplex over PL

1) A *party wall* on a property line of a building of residential occupancy need not be constructed as a *firewall*, provided it is constructed as a *fire separation* having not less than a 1 h *fire-resistance rating*, where the *party wall* separates

- a) two *dwelling units* where there is no *dwelling unit* above another *dwelling unit*,
- b) a *dwelling unit* and a house with a *secondary suite* including their common spaces,
or
- c) two houses with a *secondary suite* including their common spaces.

2) Reserved.

3) The wall described in Sentence (1) shall provide continuous protection from the top of the footings to the underside of the roof deck.

4) Any space between the top of the wall described in Sentence (1) and the roof deck shall be tightly filled with mineral wool or *noncombustible* material.

9.10.11.3. Construction of Firewalls

1) Where *firewalls* are used, the requirements in Part 3 shall apply.



Poll Questions

Poll Question #3

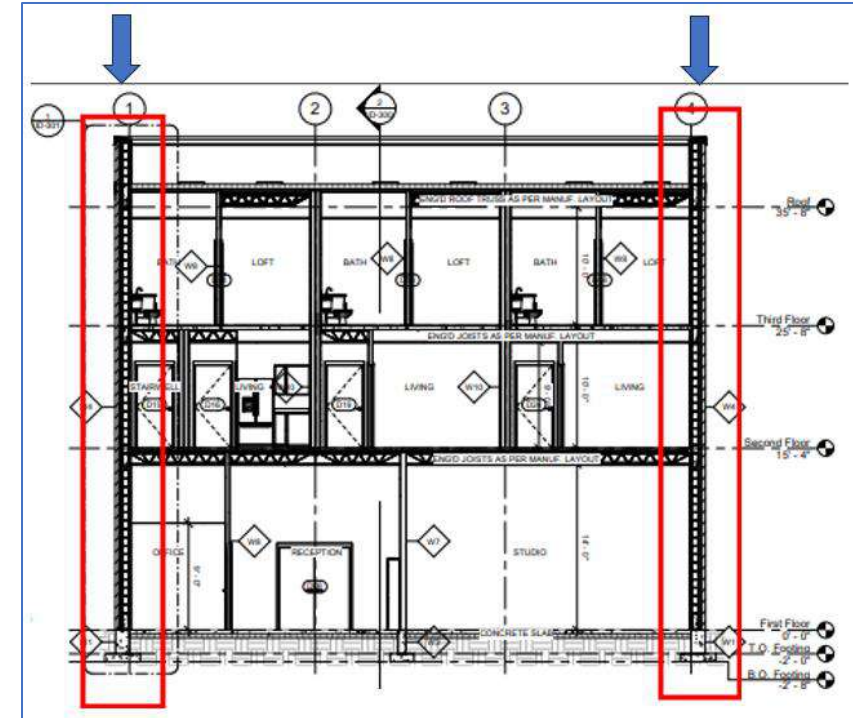
Do the exterior walls at PL need to be designed as a fire wall with parapet heights?

- Yes = 49%
- No = 29%
- Unsure = 21%

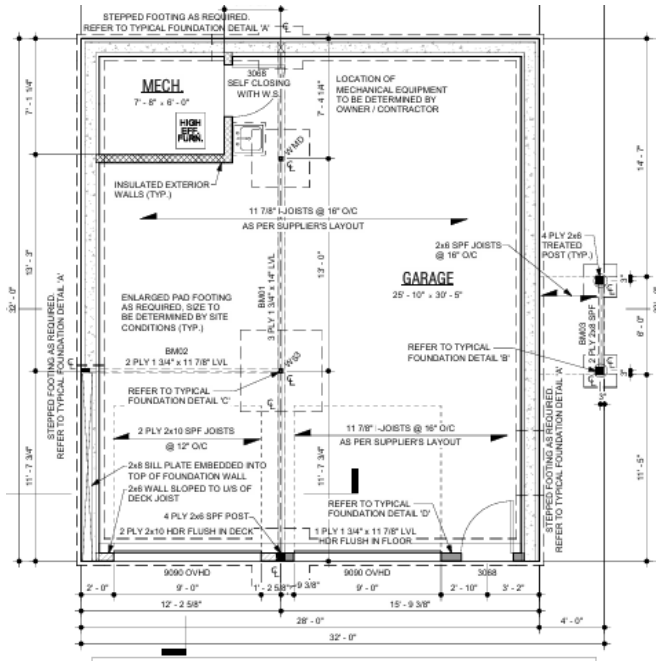
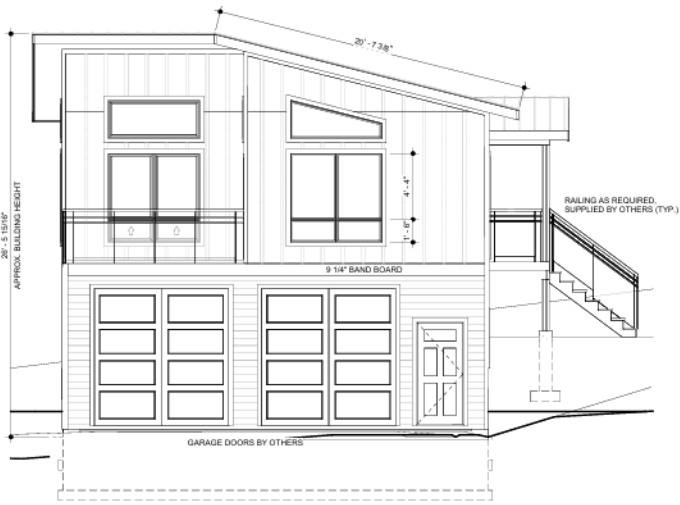
119 Responses

I'm saying NO – Ken K

Exterior side walls up to the PL not on or over.



I would recommend a deeper review of spatial and firewalls. Ken K



Members Question

Project- Change of Use of Farm Storage Building (garage level) to **Cidery Occupancy F3** (carriage-style, walkout building built as future Residential for farm worker housing- built and finished 2020)

Cidery use- Part 9.9.8.2 stipulates 2 exit doors are required **but that 1 exit door is acceptable if the occupancy does not exceed 60 persons and the maximum distance to the exit is compliant with F2 or F3 occupancy distances (10 or 15 m).**

If both conditions for Distance and Occupancy level are met, **should one door be allowed assuming fire loading falls within the occupancy rating? (low or medium hazard)**

PUT it in the Chat Floor Area under 150 sqm

9.9.8.2. Number of Exits

- 1) Except as provided in Sentence (2) and Subsection 9.9.9., at least 2 exits shall be provided from every floor area, spaced so that the travel distance to the nearest exit is not more than
 - c) 30 m for all other occupancies.

- 2) Except as provided in Subsection 9.9.9.(Egress from Dwelling Units), a single exit is permitted from each storey in buildings of 1 and 2 storeys in building height provided the floor area and travel distance requirements conform to those required in Article 9.9.7.4. and the total occupant load served by an exit facility does not exceed 60 persons.

9.9.7.4. Number and Spacing of Egress Doors
Table 9.9.7.4. - Single means of Egress

Occupancy of Room, Suite or Floor Area	Maximum Area of Room, Suite or Floor Area, m ²	Maximum Distance to Egress Door, m
Group F, Division 2	150	10
Group F, Division 3	200	15



Roof-top Occupancies

Part 9 and Part 3 Buildings

2024 BC Building Code



Purpose

Roof top occupancies have become a popular feature in larger commercial office buildings, restaurants, multi-family buildings, and to expand living spaces for single family and town-house units.

The following session will explore some of the basic Code requirements outlined within the 2024 BC Building Code.

Background

Traditional uses of roof tops were focused on servicing mechanical equipment or the occasional roof top chase, with limited access by a hatch or stairway extended to roof level.





The BC Building Code (BCBC) requirements for roof-top enclosures and roof-top occupancies were based on the model National Building Code of Canada (NBC).

Leading into the 2018 BCBC updates, the construction industry in BC identified a need to update these requirements to reflect industry changes in the use of roof-top areas of buildings. Roof-top areas are often used as amenity areas and as additional floor space for building occupants. These amenity areas, such as roof-top patios or gardens, may be used by the occupants of a single suite or may be shared spaces for building occupants or the public.

Increased safety requirements were adopted into the 2018 BCBC to ensure the occupants of roof-top areas are able to exit safely in the event of a fire or other emergency.

[Link - bcabc2018_proposed_change_roof-top_enclosures_and_occupancies.pdf](#)

Background



British Columbia Building Code 2018
Proposed Code Changes to Roof-top Enclosures and Occupancies

PROPOSED CHANGE: Roof-top Enclosures and Occupancies

CHANGE NUMBER: BCBC2018-R204-RT

CODE REFERENCE: British Columbia Building Code 2018 - Part 3 and Part 9 of Division B

DESCRIPTION OF THE PROPOSED AMENDMENT:

To exempt specific roof-top enclosures from being counted as a storey in a building's height and to increase safety for persons occupying and leaving roof-top areas.

PROBLEM/BACKGROUND/RATIONALE FOR CHANGE:

The BC Building Code (BCBC) requirements for roof-top enclosures and roof-top occupancies are based on the model National Building Code of Canada (NBC). The construction industry in BC has identified a need to update these requirements to reflect industry changes in the use of roof-top areas of buildings. Roof-top areas are often used as amenity areas and as additional floor space for building occupants. These amenity areas, such as roof-top patios or gardens, may be used by the occupants of a single suite or may be shared spaces for building occupants or the public.

Increased safety requirements are proposed to ensure the occupants of roof-top areas are able to exit safely in the event of a fire or other emergency.

JUSTIFICATION/EXPLANATION:

Roof-top occupancies present some unique challenges in the BCBC, as the BCBC defined term "floor area" does not apply to the area of an occupied roof. Because of this, the code's definition of "exit" also does not apply, as "exits" are defined as leading from "floor areas". Concepts such as travel distance and audibility of fire alarms also relate to floor areas and to exits, leading to inconsistent code application for roof-top occupancies.

The current requirements related to roof-top enclosures and roof-top occupancies generally permit a lesser level of safety than in other areas of the building, as there is no baseline requirement for two fire protected exits directly from the roof area, as is required in other parts of the building. The proposed changes will require two fire protected means of egress at the roof level if the roof-top occupancy serves more than 60 persons. Further, the current requirements do not address audibility of fire alarm systems at the roof level; changes have been proposed to apply these requirements. Clarity is also provided that the requirements for exit signs apply to these rooftop areas. An existing requirement in the BCBC - to provide a manual fire alarm pull station - has been maintained so that these manual stations are required near roof-top means of egress that are constructed as exits.

The current BCBC exempts a roof-top enclosure for a stairway to the roof-top from being counted as a storey in building height if the enclosure is used for service access only. The intent of this exemption is to recognize that the risk to the building and its occupants is minimized because the roof-top enclosure is infrequently occupied, and thus does not constitute a significant fire safety risk. It is acknowledged in the proposed changes that despite being used to access a roof-top amenity area, enclosures for stairways and elevators to roof-tops will still be infrequently occupied. New language restricting the use of stairways and elevators to roof-top enclosures or occupancies has been added to reinforce the intent that these spaces are only intended for transient use.

Page 1 of 4



Previous BCBCs exempted a roof-top enclosure for a stairway to the roof-top from being counted as a storey in building **height if the enclosure is used for service access only**. The intent of this exemption was to recognize that the risk to the building and its occupants is minimized because the roof-top enclosure is infrequently occupied and thus does not constitute a significant fire safety risk.

It was acknowledged in the 2018 changes that despite being used to access a roof-top amenity area, enclosures for stairways and elevators to roof-tops will still be infrequently occupied. New language restricting the use of stairways and elevators to roof-top enclosures or occupancies had been added to reinforce the intent that these spaces are only intended for transient use.

[Link - bcbc2018 proposed change roof-top enclosures and occupancies.pdf](#)

Background



British Columbia Building Code 2018
Proposed Code Changes to Roof-top Enclosures and Occupancies

PROPOSED CHANGE: Roof-top Enclosures and Occupancies

CHANGE NUMBER: BCBC2018-R204-RT

CODE REFERENCE: British Columbia Building Code 2018 - Part 3 and Part 9 of Division B

DESCRIPTION OF THE PROPOSED AMENDMENT:

To exempt specific roof-top enclosures from being counted as a storey in a building's height and to increase safety for persons occupying and leaving roof-top areas.

PROBLEM/BACKGROUND/RATIONALE FOR CHANGE:

The BC Building Code (BCBC) requirements for roof-top enclosures and roof-top occupancies are based on the model National Building Code of Canada (NBC). The construction industry in BC has identified a need to update these requirements to reflect industry changes in the use of roof-top areas of buildings. Roof-top areas are often used as amenity areas and as additional floor space for building occupants. These amenity areas, such as roof-top patios or gardens, may be used by the occupants of a single suite or may be shared spaces for building occupants or the public.

Increased safety requirements are proposed to ensure the occupants of roof-top areas are able to exit safely in the event of a fire or other emergency.

JUSTIFICATION/EXPLANATION:

Roof-top occupancies present some unique challenges in the BCBC, as the BCBC defined term "floor area" does not apply to the area of an occupied roof. Because of this, the code's definition of "exit" also does not apply, as "exits" are defined as leading from "floor areas". Concepts such as travel distance and audibility of fire alarms also relate to floor areas and to exits, leading to inconsistent code application for roof-top occupancies.

The current requirements related to roof-top enclosures and roof-top occupancies generally permit a lesser level of safety than in other areas of the building, as there is no baseline requirement for two fire protected exits directly from the roof area, as is required in other parts of the building. The proposed changes will require two fire protected means of egress at the roof level if the roof-top occupancy serves more than 60 persons. Further, the current requirements do not address audibility of fire alarm systems at the roof level; changes have been proposed to apply these requirements. Clarity is also provided that the requirements for exit signs apply to these roof-top areas. An existing requirement in the BCBC – to provide a manual fire alarm pull station – has been maintained so that these manual stations are required near roof-top means of egress that are constructed as exits.

The current BCBC exempts a roof-top enclosure for a stairway to the roof-top from being counted as a storey in building height if the enclosure is used for service access only. The intent of this exemption is to recognize that the risk to the building and its occupants is minimized because the roof-top enclosure is infrequently occupied, and thus does not constitute a significant fire safety risk. It is acknowledged in the proposed changes that despite being used to access a roof-top amenity area, enclosures for stairways and elevators to roof-tops will still be infrequently occupied. New language restricting the use of stairways and elevators to roof-top enclosures or occupancies has been added to reinforce the intent that these spaces are only intended for transient use.

Page 1 of 4



Roof-top occupancies presented some unique challenges in the BCBC, as the BCBC defined term “floor area” did not apply to the area of an occupied roof. Because of this, the code’s definition of “exit” also did not apply, as “exits” are defined as leading from “floor areas”. Concepts such as travel distance and audibility of fire alarms also relate to floor areas and to exits, leading to inconsistent code application for roof-top occupancies.

Background

British Columbia Building Code 2018
Proposed Code Changes to Roof-top Enclosures and Occupancies

PROPOSED CHANGE: Roof-top Enclosures and Occupancies

CHANGE NUMBER: BCBC2018-R204-RT

CODE REFERENCE: British Columbia Building Code 2018 - Part 3 and Part 9 of Division B

DESCRIPTION OF THE PROPOSED AMENDMENT:

To exempt specific roof-top enclosures from being counted as a storey in a building’s height and to increase safety for persons occupying and leaving roof-top areas.

PROBLEM/BACKGROUND/RATIONALE FOR CHANGE:

The BC Building Code (BCBC) requirements for roof-top enclosures and roof-top occupancies are based on the model National Building Code of Canada (NBC). The construction industry in BC has identified a need to update these requirements to reflect industry changes in the use of roof-top areas of buildings. Roof-top areas are often used as amenity areas and as additional floor space for building occupants. These amenity areas, such as roof-top patios or gardens, may be used by the occupants of a single suite or may be shared spaces for building occupants or the public.

Increased safety requirements are proposed to ensure the occupants of roof-top areas are able to exit safely in the event of a fire or other emergency.

JUSTIFICATION/EXPLANATION:

Roof-top occupancies present some unique challenges in the BCBC, as the BCBC defined term “floor area” does not apply to the area of an occupied roof. Because of this, the code’s definition of “exit” also does not apply, as “exits” are defined as leading from “floor areas”. Concepts such as travel distance and audibility of fire alarms also relate to floor areas and to exits, leading to inconsistent code application for roof-top occupancies.

The current requirements related to roof-top enclosures and roof-top occupancies generally permit a lesser level of safety than in other areas of the building, as there is no baseline requirement for two fire protected exits directly from the roof area, as is required in other parts of the building. The proposed changes will require two fire protected means of egress at the roof level if the roof-top occupancy serves more than 60 persons. Further, the current requirements do not address audibility of fire alarm systems at the roof level; changes have been proposed to apply these requirements. Clarity is also provided that the requirements for exit signs apply to these rooftop areas. An existing requirement in the BCBC – to provide a manual fire alarm pull station – has been maintained so that these manual stations are required near roof-top means of egress that are constructed as exits.

The current BCBC exempts a roof-top enclosure for a stairway to the roof-top from being counted as a storey in building height if the enclosure is used for service access only. The intent of this exemption is to recognize that the risk to the building and its occupants is minimized because the roof-top enclosure is infrequently occupied, and thus does not constitute a significant fire safety risk. It is acknowledged in the proposed changes that despite being used to access a roof-top amenity area, enclosures for stairways and elevators to roof-tops will still be infrequently occupied. New language restricting the use of stairways and elevators to roof-top enclosures or occupancies has been added to reinforce the intent that these spaces are only intended for transient use.

Page 1 of 4



For podiums, terraces, platforms, **and contained open spaces**, clarification has been added that these spaces must also be accounted for in the design of exits for buildings. Similar to roof-top occupancies, these spaces do not typically meet the definition of “floor area”. This led to inconsistent code application for these areas, in particular for the design of required exits from the building.

Background

British Columbia Building Code 2018
Proposed Code Changes to Roof-top Enclosures and Occupancies

PROPOSED CHANGE: Roof-top Enclosures and Occupancies

CHANGE NUMBER: BCBC2018-R204-RT

CODE REFERENCE: British Columbia Building Code 2018 - Part 3 and Part 9 of Division B

DESCRIPTION OF THE PROPOSED AMENDMENT:

To exempt specific roof-top enclosures from being counted as a storey in a building's height and to increase safety for persons occupying and leaving roof-top areas.

PROBLEM/BACKGROUND/RATIONALE FOR CHANGE:

The BC Building Code (BCBC) requirements for roof-top enclosures and roof-top occupancies are based on the model National Building Code of Canada (NBC). The construction industry in BC has identified a need to update these requirements to reflect industry changes in the use of roof-top areas of buildings. Roof-top areas are often used as amenity areas and as additional floor space for building occupants. These amenity areas, such as roof-top patios or gardens, may be used by the occupants of a single suite or may be shared spaces for building occupants or the public.

Increased safety requirements are proposed to ensure the occupants of roof-top areas are able to exit safely in the event of a fire or other emergency.

JUSTIFICATION/EXPLANATION:

Roof-top occupancies present some unique challenges in the BCBC, as the BCBC defined term “floor area” does not apply to the area of an occupied roof. Because of this, the code's definition of “exit” also does not apply, as “exits” are defined as leading from “floor areas”. Concepts such as travel distance and audibility of fire alarms also relate to floor areas and to exits, leading to inconsistent code application for roof-top occupancies.

The current requirements related to roof-top enclosures and roof-top occupancies generally permit a lesser level of safety than in other areas of the building, as there is no baseline requirement for two fire protected exits directly from the roof area, as is required in other parts of the building. The proposed changes will require two fire protected means of egress at the roof level if the roof-top occupancy serves more than 60 persons. Further, the current requirements do not address audibility of fire alarm systems at the roof level; changes have been proposed to apply these requirements. Clarity is also provided that the requirements for exit signs apply to these rooftop areas. An existing requirement in the BCBC – to provide a manual fire alarm pull station – has been maintained so that these manual stations are required near roof-top means of egress that are constructed as exits.

The current BCBC exempts a roof-top enclosure for a stairway to the roof-top from being counted as a storey in building height if the enclosure is used for service access only. The intent of this exemption is to recognize that the risk to the building and its occupants is minimized because the roof-top enclosure is infrequently occupied, and thus does not constitute a significant fire safety risk. It is acknowledged in the proposed changes that despite being used to access a roof-top amenity area, enclosures for stairways and elevators to roof-tops will still be infrequently occupied. New language restricting the use of stairways and elevators to roof-top enclosures or occupancies has been added to reinforce the intent that these spaces are only intended for transient use.

Page 1 of 4



Background

An example of the differences for code requirements in the 2024 BCBC and 2020 NBC

3.2.2.4. Rooftop Enclosures (2024 BCBC)

- 1) A rooftop enclosure for elevator machinery, **an elevator lobby or** for a service room shall be constructed in accordance with the type of construction required by Articles 3.2.2.20. to **3.2.2.93.**
- 2) A rooftop enclosure for elevator machinery, **an elevator lobby** or for a service room, not more than one storey high, **and that does not serve as part of a means of egress for an occupancy on a roof in accordance with Sentences 3.3.1.3.(4) to (6),** is not required to have a fire-resistance rating.
- 3) A rooftop enclosure for a stairway shall be constructed in accordance with the type of construction required by Articles 3.2.2.20. **to 3.2.2.93.**
- 4) A rooftop enclosure for a stairway **or an elevator lobby serving an occupancy on a roof that serves only one dwelling unit need not have a fire-resistance rating** nor be constructed as a fire separation.

3.2.2.4 Rooftop Enclosures (2020 NBC)

- 1) A rooftop enclosure for elevator machinery or for a service room shall be constructed in accordance with the type of construction required by Articles 3.2.2.20. to 3.2.2.92.
- 2) A rooftop enclosure for elevator machinery or for a service room, not more than one storey high, is not required to have a fire-resistance rating.
- 3) A rooftop enclosure for a stairway shall be constructed in accordance with the type of construction required by Articles 3.2.2.20. to 3.2.2.92.
- 4) A rooftop enclosure for a stairway need not have a fire-resistance rating nor be constructed as a fire separation.



Reference -Vancouver Bldg Bylaw

Vancouver has produced a guide in relation to balconies, Porches, Verandas, Patios and Roof Decks.

Does any other community of a roof-top occupancy guide?

[Link - Bulletin: Balconies, Decks, Entries, Porches and Verandahs, Patios, and Roof Decks](#)

5. Roof Decks	
Regulation(s)	Interpretation
Determination of Roof Deck	<ul style="list-style-type: none"> In the definition of Roof Deck (see Section 2 of the by-law) a roof deck is described as a platform that is located in such a way as to form a roof over an existing or proposed floor below. Determination as to whether a building element meets the definition of Roof Deck is not dependent on whether the area below is excluded or included in the floor area calculations.
Height	<ul style="list-style-type: none"> Guard rails around roof decks are counted in the maximum building height calculations (See figures 11 and 12).
Floor Space Ratio (FSR)	<ul style="list-style-type: none"> Roof decks are generally not limited in size and, provided the Director of Planning first considers the effect on privacy and overlook, these areas are excluded from FSR if they are uncovered and unenclosed. Note: roof decks are not included in the floor area exclusion limits for balconies, decks, porches. Where roof decks are accessed via exterior stairs those stairs will be counted in the floor area calculations. Other features located on roof decks will be counted in floor area calculations (e.g. roof access structures and pergolas).
Building Depth	<ul style="list-style-type: none"> Roof decks can be located anywhere within the permitted building depth of the principal building provided that on conditional applications the Director of Planning considers the impact on privacy and overlook.
Accessory Buildings	<ul style="list-style-type: none"> Roof decks are typically not permitted on an accessory building (to protect privacy and limit overlook), unless it is also located within the building depth of the principal building (see district schedule for specific regulations).

Figure 11. Roof deck example

Figure 12. Roof deck guard rails example

City of Vancouver
Balconies, Decks, Entries, Porches and Verandahs, Patios, and Roof Decks in R1-1, RT and RM Districts

Page 10
February 2024



ICC - Rooftop (roof-top) Occupancies

American codes have updated regulations for occupied roofs - perhaps further work can be done developing BCBC and NBC standards and education.



[What to know about occupied roofs - BRR Codes Series](#)



Definitions related to Rooftops

Building area means the greatest horizontal area of a building above grade within the outside surface of exterior walls or within the outside surface of exterior walls and the centre line of firewalls.

Building height (in storeys) means the number of storeys contained between the roof and the floor of the *first storey*.

Floor area means the space on any storey of a building between exterior walls and required firewalls, including the space occupied by interior walls and partitions, but not including exits, vertical service spaces, and their enclosing assemblies.

Storey means that portion of a *building* that is situated between the top of any floor and the top of the floor next above it, and if there is no floor above it, that portion between the top of such floor and the ceiling above it.

Rooftop Enclosure – not defined

Occupancy means the use or intended use of a building or part thereof for the shelter or support of persons, animals or property.

Occupant load means the number of persons for which a building or part thereof is designed.

Podiums, terraces, platforms and contained open spaces - not defined



Definitions

Rooftop Enclosure – could be an unrated enclosed stairway from a parking level or mechanical service space on the roof that is not considered a storey.

Today this may mean so much more including the stairway access, an elevator and lobby area and covered patio areas.

Note the requirements now in the code for rated and unrated enclosures.





Occupant Loads

Occupant load means the number of persons for which a building or part thereof is designed.

Floor area means the space on any storey of a building between exterior walls and required firewalls, including the space occupied by interior walls and partitions, but not including exits, vertical service spaces, and their enclosing assemblies.

3.1.17. Occupant Load

3.1.17.1. Occupant Load Determination

- 1) The **occupant load** of a floor area or part of a floor area shall be based on
 - a) the number of seats in an *assembly occupancy* having fixed seats,
 - b) 2 persons per sleeping room in a *dwelling unit*, or
 - c) the number of persons for which the area is designed, but not less than that determined from Table 3.1.17.1. for *occupancies* other than those described in Clauses (a) and (b), unless it can be shown that the area will be occupied by fewer persons.
- 2) If a floor area or part thereof has been designed for an **occupant load** other than that determined from Table 3.1.17.1., a permanent sign indicating that **occupant load** shall be posted in a conspicuous location.
- 3) For the purposes of this Article, *mezzanines*, tiers and balconies shall be regarded as part of the *floor area*.
- 4) If a room or group of rooms is intended for different *occupancies* at different times, the value to be used from Table 3.1.17.1. shall be the value which gives the greatest number of persons for the *occupancies* concerned.



Occupant Loads

Occupant loads are a major factor to consider as it touches on many aspects of safety, health and accessibility:

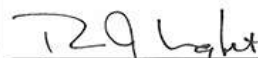
- 3.2.4. Fire Alarm and Detection Systems
- 3.2.6. Additional Requirements for High Buildings
- 3.2.7. Lighting and Emergency Power Systems
- 3.3. Safety within Floor Areas – Means of Egress, Fire Separations
- 3.4 Exits
 - 3.4.5. Exit Signage
- 3.7.2. Plumbing Facilities
- 3.8 Accessibility



Traditionally, small ground level patios (restaurants & coffee shops) have had a mixed interpretation to factor seating into the total occupant load as they are considered auxiliary use and not part of the building floor area or used year-round. Adding the exterior seating is a potential issue with total washroom counts.

BC Building Code Interpretation (12-0045) provides a mixed answer to this ongoing debate, leaving it to the AHJ to make the determination.

Occupant Loads

BC BUILDING CODE INTERPRETATION COMMITTEE		
A joint committee with members representing AIBC, APEGBC, BOABC, POABC		
File No: 12-0045	INTERPRETATION	Page 1 of 1
Interpretation Date:	January 27, 2015	
Building Code Edition:	BC Building Code 2012	
Subject:	Washroom counts for exterior ancillary spaces	
Keywords:	Washroom counts, exterior ancillary spaces, assembly occupancies	
Building Code Reference(s):	3.1.17.1., 3.7.2.2.	
Question:		
Washroom counts are determined based on estimated occupant load which is typically derived from floor area size, as set out in Article 3.1.17.1. "Floor area" is a defined term and is typically assumed to refer to interior spaces bounded by exterior walls.		
Do the requirements for washroom fixtures apply to exterior ancillary spaces such as exterior patios and roof decks?		
Interpretation:		
Yes.		
Occupant load is determined from Sentences 3.1.17.1.(1) & (2). Sentence 3.1.17.1.(3) indicates that balconies are regarded as part of the floor area for the purposes of Article 3.1.17.1. Similarly exterior ancillary spaces if occupied should be considered as part of the interior floor area for the purposes of Articles 3.1.17.1 and 3.7.2.2.		
However if it can be satisfactorily demonstrated that fewer persons will actually occupy simultaneously both interior and exterior spaces combined, then this would be consistent with Clause 3.1.17.1.(1)(c).		
Seating in an exterior space is typically seasonal; discussion and agreement with the Authority having Jurisdiction may be warranted.		
		
R. J. Light, Committee Chair		
<small>The views expressed are the consensus of the joint committee with members representing AIBC, APEGBC, BOABC, and POABC, which form the BC Building Code Interpretation Committee. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local Authority Having Jurisdiction. The views of the joint committee should not be construed as legal advice.</small>		
<small>1107875 / 2015-01-27</small>		



Poll Questions

Poll Question #4

Would you calculate the occupant load for a roof top patio servicing a restaurant with access through the building?

- No = 90%
- Yes = 2%
- Unsure = 6%

115 Responses



Rooftop (roof-top) Occupancies

An outline of potential items to consider when reviewing a building with a rooftop occupancy

- **Height Restrictions:** Roof-top enclosures or patios may be considered a storey, which may trigger a change in the code classification including high-rise requirements.
- **Fire Safety:** two means of egress, fire separations from the floor below and exit routes to incorporate
- **Structural Integrity:** The building must be assessed to ensure it can support the additional load of the roof-top occupancy.
- **Accessibility:** Depending on the design and use of the roof-top space, accessibility requirements such as ramps or elevators may be necessary.
- **Audibility of Fire Alarms:** Fire alarm systems must be audible at the roof level.
- **Exit signs & emergency lighting:** Exit signs and emergency lighting must be provided for roof-top areas.



Part 3 – Determining Height

3.2.1.1. Exceptions in Determining Building Height

1) A rooftop enclosure shall not be considered as a storey in calculating the building height if it is provided for

- a) elevator machinery,
- b) a service room,
- c) a stairway used for no purpose other than for access or egress,
- d) an elevator lobby used for no purpose other than for access or egress, or (BCBC addition)
- e) a combination thereof.



Part 3 – Determining Height

Adding a rooftop occupancy may trigger additional requirements including 3.2.6. for high buildings.

3.2.2.48. Group C, up to 12 Storeys, Sprinklered - 1(c) c) it has a height not more than 50 m measured between the floor of the first storey and the uppermost floor level that does not serve a rooftop enclosure for elevator machinery, a stairway or a service room used only for service to the building, and

3.2.2.51. Group C, up to 6 Storeys, Sprinklered -1 (c) (18.0m)

3.2.2.57. Group D, up to 12 storeys, Sprinklered – 1(c) (50.0m)

3.2.2.60. Group D, up to 6 Storeys, Sprinklered – 1(c) (18.0m)

3.2.6. Additional Requirements for High Buildings

3.2.6.1. Application

- 1)** Except as provided in Sentence (2), this Subsection applies to a *building*
 - a) of Group A, D, E or F *major occupancy* classification that is more than
 - i) 36 m high, measured between *grade* and the floor level of the top *storey*, or
 - ii) 18 m high, measured between *grade* and the floor level of the top *storey*, and in which the cumulative or total **occupant load** on or above any *storey* above *grade*, other than the *first storey*, divided by 1.8 times the width in metres of all *exit* stairs at that *storey*, exceeds 300,
 - b) containing a Group B *major occupancy* in which the floor level of the highest *storey* of that *major occupancy* is more than 18 m above *grade*,
 - c) containing a *floor area* or part of a *floor area* located above the third *storey* designed or intended as a Group B, Division 2 or 3 *occupancy*, or
 - d) containing a Group C *major occupancy* whose floor level is more than 18 m above *grade*.
- 2)** Except as required by Clause 3.2.6.1.(1)(c), this Subsection applies to a *building* or part of a *building* constructed in conformance with Article 3.2.2.57. or 3.2.2.93. in which the floor level of the highest *storey* is more than 18 m above *grade*.

Why do you think there is this wording in only some of the building classifications?



Part 3

3.2.2.14. Rooftop Enclosures

- 1) A rooftop enclosure for elevator machinery , an elevator lobby or for a service room shall be constructed in accordance with the type of construction required by Articles 3.2.2.20. to 3.2.2.93.
- 2) A rooftop enclosure for elevator machinery , an elevator lobby or for a service room, not more than one storey high, and that does not serve as part of a means of egress for an occupancy on a roof in accordance with Sentences 3.3.1.3.(4) to (6), is not required to have a fire-resistance rating.
- 3) A rooftop enclosure for a stairway shall be constructed in accordance with the type of construction required by Articles 3.2.2.20. to 3.2.2.93.
- 4) A rooftop enclosure for a stairway or an elevator lobby serving an occupancy on a roof that serves only one dwelling unit need not have a fire-resistance rating nor be constructed as a fire separation.



3.3.1.3. Means of Egress

- 1) Access to exit within floor areas shall conform to Subsections 3.3.2. to 3.3.5., in addition to the requirements of this Subsection.
- 2) If a podium, terrace, platform or contained open space is provided, egress requirements shall conform to the appropriate requirements of **Sentence 3.3.1.5.(1) (Egress Doorways)** for rooms and suites.
- 3) Means of egress shall be provided from every roof which is intended for occupancy, and from every podium, terrace, platform or contained open space used or intended for occupancy, to exits in conformance with the requirements of **Section 3.4. (Exits)**.



Egress Doorways

3.3.1.3. Means of Egress

2) If a podium, terrace, platform or contained open space is provided, egress requirements shall conform to the appropriate requirements of **Sentence 3.3.1.5.(1) (Egress Doorways)** for rooms and suites.

What would you use as the Occupancy type for a rooftop patio serving an Apartment complex (Group C) building Or an office building?
Group A?

3.3.1.5. Egress Doorways

- 1)** Except for *dwelling units*, a minimum of 2 egress doorways located so that one doorway could provide egress from the room or *suite* as required by Article 3.3.1.3. if the other doorway becomes inaccessible to the occupants due to a fire which originates in the room or *suite*, shall be provided for every room and every *suite*
- a) that is used for a *high-hazard industrial occupancy* and whose area is more than 15 m²,
 - b) intended for an *occupant load* more than 60,
 - c) in a *floor area* that is not *sprinklered* throughout, and
 - i) the area of a room or *suite* is more than the value in Table 3.3.1.5.-A, or
 - ii) the travel distance within the room or *suite* to the nearest egress doorway is more than the value in Table 3.3.1.5.-A, or
 - d) in a *floor area* that is *sprinklered* throughout and does not contain a *high-hazard industrial occupancy* and
 - i) the travel distance to an egress doorway is more than 25 m, or
 - ii) the area of the room or *suite* is more than the value in Table 3.3.1.5.-B.
- 2)** Where 2 egress doorways are required by Sentence (1), they shall be placed at a distance from one another equal to or greater than one third of the maximum overall diagonal dimension of the area to be served, measured as the shortest distance that smoke would have to travel between the nearest required egress doors.

Table 3.3.1.5.-A
Egress in Floor Area not Sprinklered Throughout
Forming Part of Sentence 3.3.1.5.(1)

Occupancy of Room or Suite	Maximum Area of Room or Suite, m ²	Maximum Distance to Egress Doorway, m
Group A	150	15
Group C	100 ⁽¹⁾	15 ⁽¹⁾
Group D	200	25
Group E	150	15
Group F, Division 2	150	10



Part 3 – Means of Egress

3.3.1.3. Means of Egress

- 4) Means of egress from an occupancy on a roof serving only a single dwelling unit shall be provided in conformance with Article 3.3.4.4. (Egress from Dwelling Units)
- 5) Except as permitted by Sentence (4) and except as required by Sentence (6), a means of egress at the roof level, designed in conformance with the requirements for exits in Section 3.4., shall be provided from an occupancy on a roof.
- 6) At least two separate means of egress at the roof level, designed in conformance with the requirements for exits in Section 3.4., shall be provided from a roof used or intended for an occupant load more than 60.
- 7) For the purposes of Sentences (5) and (6), the occupied area of the occupancy on a roof shall be used in place of floor area.
- 8) A rooftop enclosure that does not serve as part of a means of egress for an occupancy on a roof in accordance with Sentence (5) or (6) shall be provided with an access to exit that leads to an exit a) at the roof level, or b) on the storey immediately below the roof.
- 9) A rooftop enclosure which is more than 200 m² in area shall be provided with at least 2 means of egress.



Part 3 – Means of Egress

3.3.1.3. Means of Egress

8) A rooftop enclosure that does not serve as part of a means of egress for an occupancy on a roof in accordance with **Sentence (5) or (6)** shall be provided with an access to exit that leads to an exit

- a) at the roof level, or
- b) on the storey immediately below the roof.

What does this mean?

Enclosed mechanical/elevator room on roof?

5) Except as permitted by Sentence (4) and except as required by Sentence (6), a means of egress at the roof level, designed in conformance with the requirements for exits in Section 3.4., shall be provided from an occupancy on a roof.

6) At least two separate means of egress at the roof level, designed in conformance with the requirements for exits in Section 3.4., shall be provided from a roof used or intended for an occupant load more than 60.



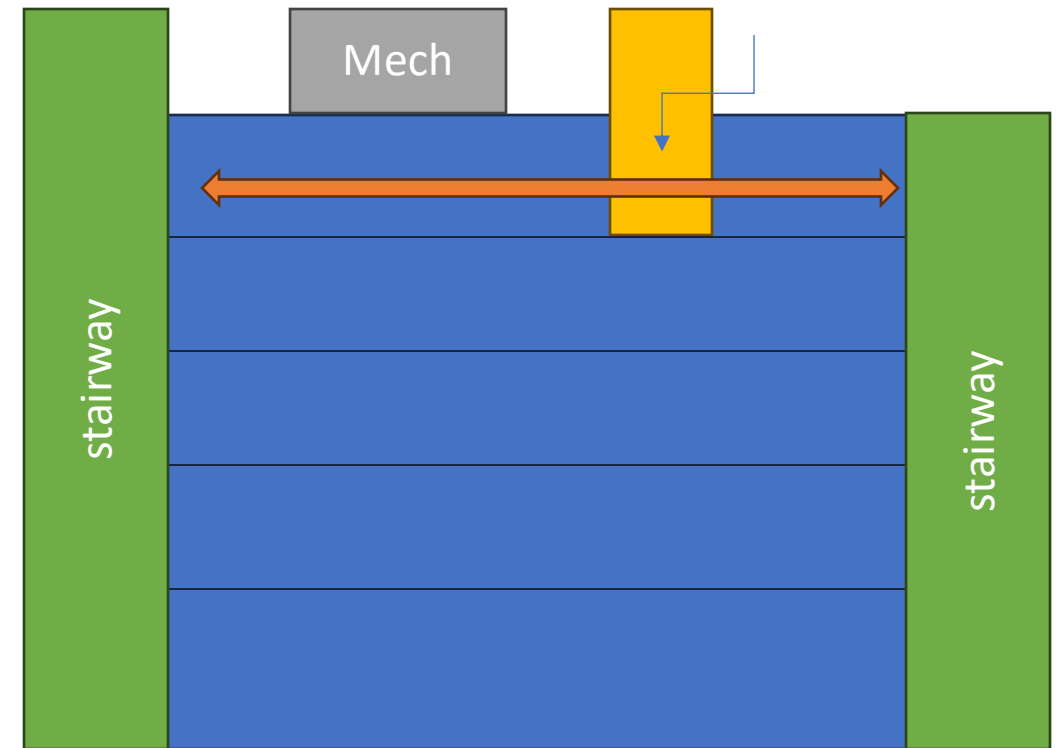
Part 3 – Means of Egress

3.3.1.3. Means of Egress

8) A rooftop enclosure that does not serve as part of a means of egress for an occupancy on a roof in accordance with **Sentence (5) or (6)** shall be provided with an access to exit that leads to an exit

- a) at the roof level, or
- b) on the storey immediately below the roof.

What does this mean – what situation would this occur?
Enclosed mechanical/elevator room on roof?



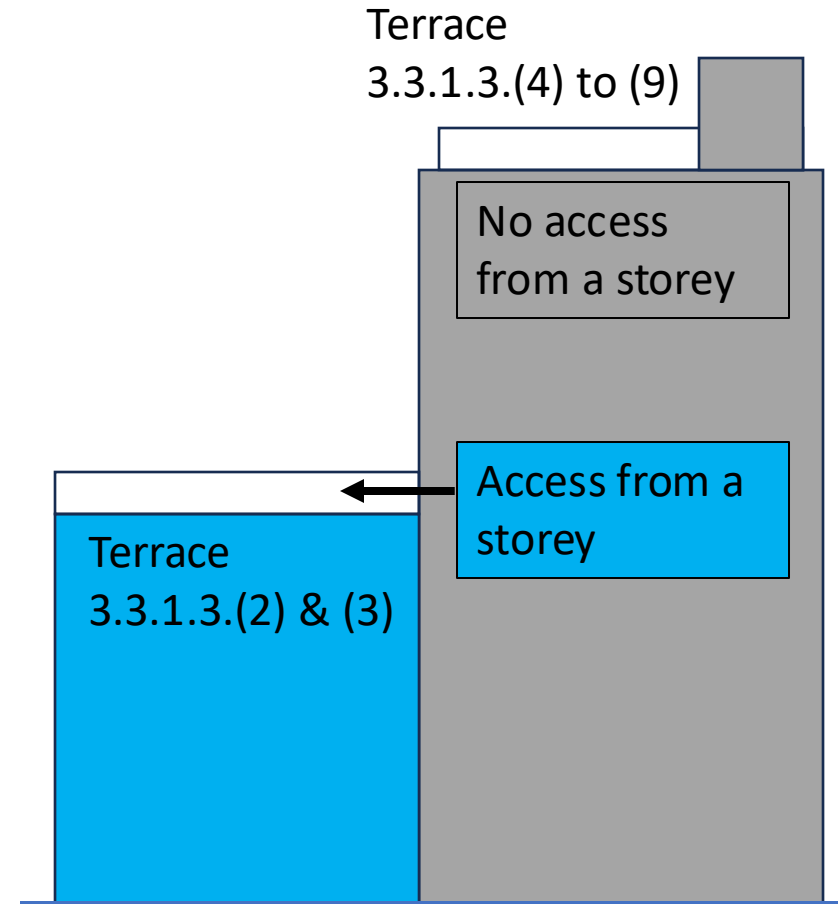


Part 3

A-3.3.1.3 Means of Egress Serving Podiums and Terraces.

The requirements for podiums and terraces in Sentence **3.3.1.3.(2) and (3)** are intended for areas situated on a level that is not at the highest elevation in a building, and where the area can be accessed by a storey of the building.

The requirements of **Sentence 3.3.1.3.(4) to (9)** are intended for roof-top areas, including “terraces” where the area is at the highest elevation of the building, and there is no access to a storey of the building at that level.





Part 3

3.6.2. Service Rooms

3.6.2.1. Fire Separations around Service Rooms

10) A fire separation is not required between a rooftop appliance and the building it serves.

3.8.5. Adaptable Dwelling Units

3.8.5.1. Application

- 1) Except as provided in Sentence (2), this Subsection applies to
 - a) one storey dwelling units served by an accessible interior public corridor and an accessible common building entrance, as required to be accessible by Articles 3.8.2.2. and 3.8.2.3., and
 - b) **common spaces and facilities intended for use by the residents of the dwelling units described in Clause (a) including common rooftop occupancies.**





Part 3 – Minimum # of Exits

3.4.2.1. Minimum Number of Exits

5) Exits are not required directly from rooftop enclosures that comply with **Sentences 3.3.1.3.(8) and (9)** or where they are served by means of egress in conformance with Sentences 3.3.1.3.(4) to (5).

3.3.1.3.

8) A rooftop enclosure that does not serve as part of a means of egress for an occupancy on a roof in accordance with **Sentence (5) or (6)** shall be provided with an access to exit that leads to an exit

- a) at the roof level, or
- b) on the storey immediately below the roof.

9) A rooftop enclosure which is more than 200 m² in area shall be provided with at least 2 means of egress.

5) Except as permitted by Sentence (4) and except as required by Sentence (6), a means of egress at the roof level, designed in conformance with the requirements for exits in Section 3.4., shall be provided from an occupancy on a roof.

6) At least two separate means of egress at the roof level, designed in conformance with the requirements for exits in Section 3.4., shall be provided from a roof used or intended for an occupant load more than 60.

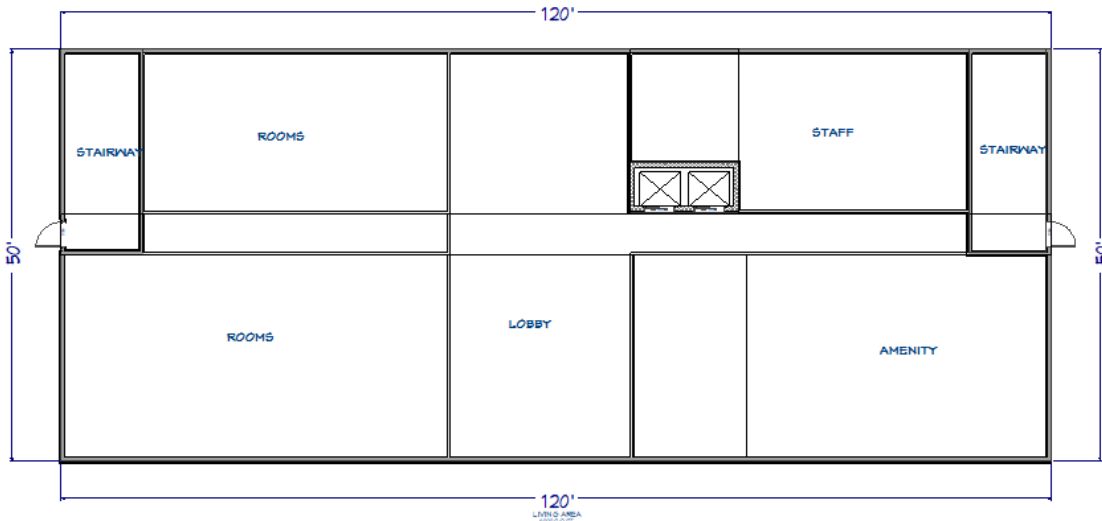


Part 3 – Rooftop Example

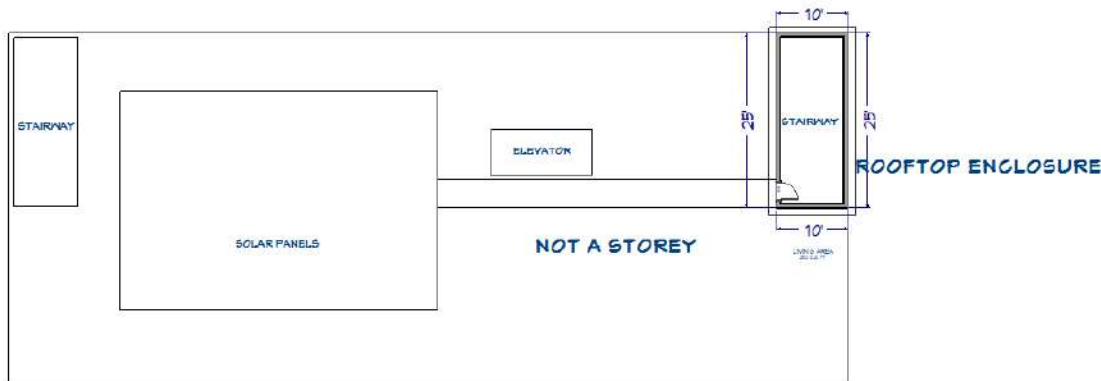


Prelim design – 6 Storey hotel project

Main Floor



Roof Level



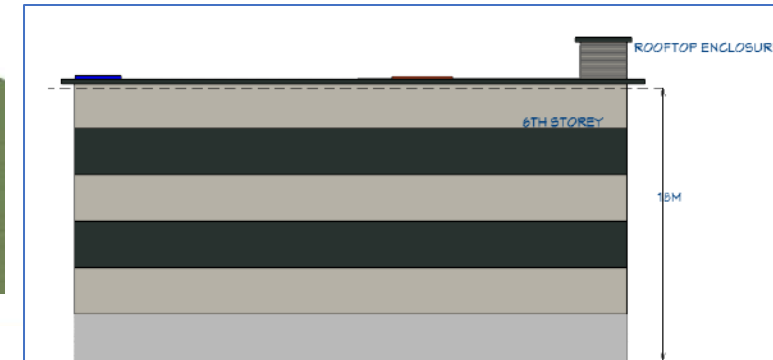
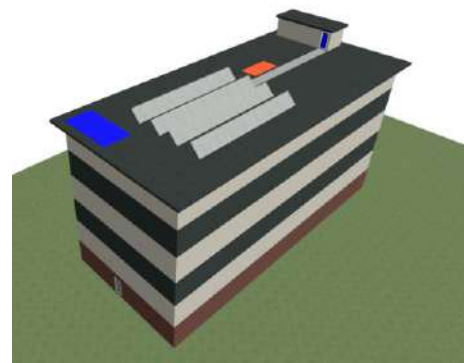
3.2.2.51. Group C, up to 6 Storeys, Sprinklered

1) A building classified as Group C is permitted to conform to Sentence (2), provided

- a) it is *sprinklered* throughout,
- b) it is not more than **6 storeys in building height**,
- c) it has a height not more than **18 m measured** between the floor of the *first storey* and the uppermost floor level, excluding any floor level within a rooftop enclosure that is not considered as a *storey* in calculating *building height* in accordance with Sentence 3.2.1.1.(1), and
- d) it has a *building area* not more than
 - i) 9 000 m² if 1 storey in building height,
 - ii) 4 500 m² if 2 storeys in building height,
 - iii) 3 000 m² if 3 storeys in building height,
 - iv) 2 250 m² if 4 storeys in building height,
 - v) 1 800 m² if 5 storeys in building height, or
 - vi) 1 500 m² if 6 storeys in building height.

2) Buildings referred to in Sentence (1) are permitted to be **of combustible construction or noncombustible construction**, used singly or in combination, and

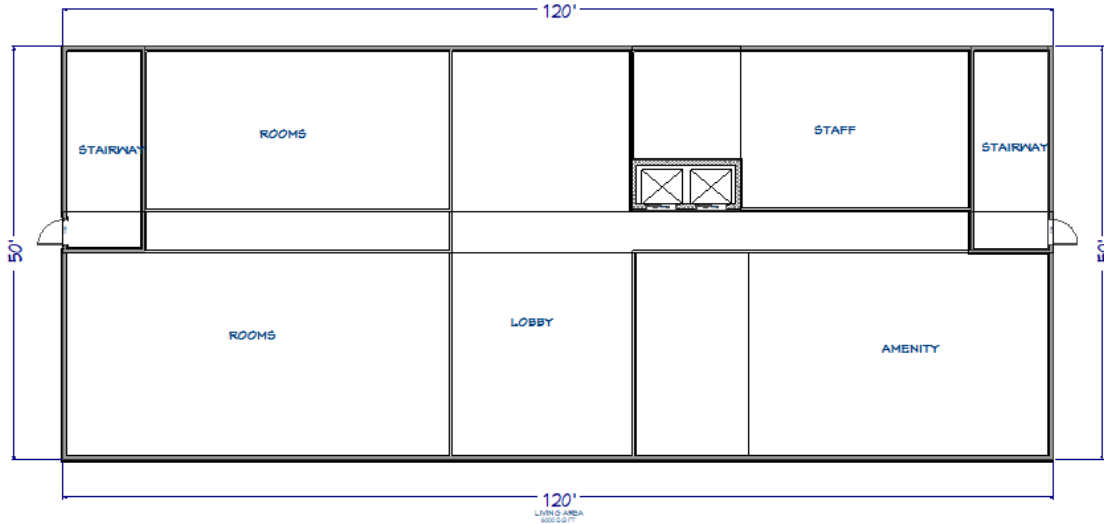
- a) except as provided in Sentence (3), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,
- b) **roof assemblies** shall have a *fire-resistance rating* not less than 1 h,



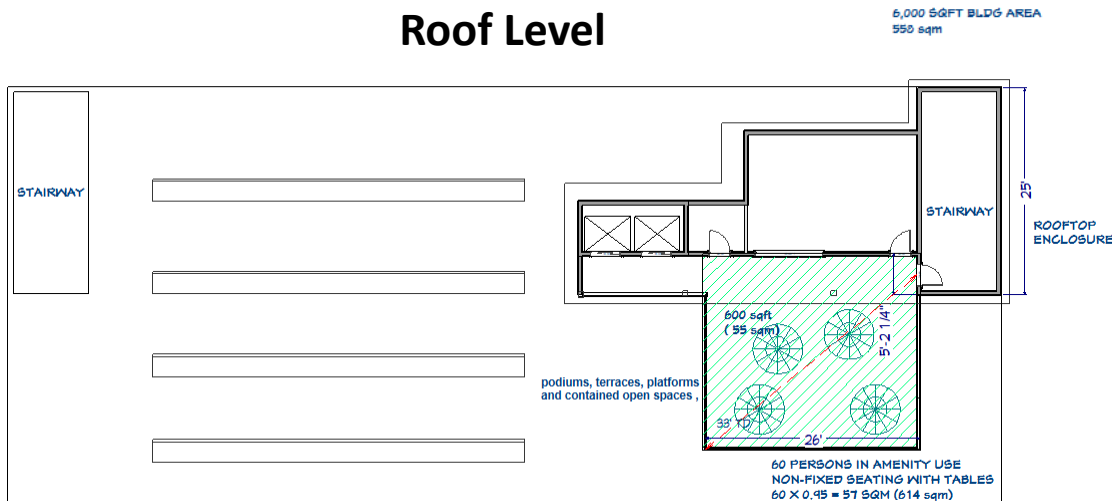


ALTERNATE – 6 Storey w/ roof patio

Main Floor



Roof Level



3.2.2.51. Group C, up to 6 Storeys, Sprinklered

1) A building classified as Group C is permitted to conform to Sentence (2), provided

- a) it is *sprinklered* throughout,
- b) it is not more than **6 storeys in building height**,
- c) it has a height not more than **18 m measured** between the floor of the *first storey* and the uppermost floor level, excluding any floor level within a rooftop enclosure that is not considered as a *storey* in calculating *building height* in accordance with Sentence 3.2.1.1.(1), and
- d) it has a *building area* not more than
 - i) 9 000 m² if 1 storey in building height,
 - ii) 4 500 m² if 2 storeys in building height,
 - iii) 3 000 m² if 3 storeys in building height,
 - iv) 2 250 m² if 4 storeys in building height,
 - v) 1 800 m² if 5 storeys in building height, or
 - vi) 1 500 m² if 6 storeys in building height.

? Does this still work?

- 2) Buildings referred to in Sentence (1) are permitted to be **of combustible construction or noncombustible construction**, used singly or in combination, and
- a) except as provided in Sentence (3), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,
 - b) **roof assemblies** shall have a *fire-resistance rating* not less than 1 h,





Renovation - Change of Use

There is a trend to repurpose buildings, which includes the use of a roof. As an example, a fitness business rents the upper floor of a 3-storey commercial building. It intends to add a large roof top work out and lounge area as part of its operations - a 4th Storey.

What considerations should be taken in account.

- Structural integrity – roof loads
- Occupant loads
- Means of egress – Exits
- Building classification
- Fire Separations – floor below – exits
- Fire Suppression
- Accessibility to roof
- Other



Part 9 – Apartment Buildings

9.5.2.3. Apartment Buildings

1) Except as provided in Sentence (2), in a building of residential occupancy that contains multiple dwelling units and common interior space served by a common building entrance, access described in Section 3.8. shall be provided from the entrances, required by Sentence 3.2.1.1.(1) to be accessible, throughout all common spaces of entrance storeys and within all other common spaces including rooftop occupancies serving adaptable dwelling units.



Part 9 – Access to Exits

9.9.7 Access to Exits

9.9.7.1. Egress from Roof Area, Podiums, Terraces, Platforms and Contained Open Spaces

- 1) Except as required by Sentences (2) and (4) an access to exit shall be provided from every roof intended for occupancy and from every podium, terrace, platform or contained open space.
- 2) Where a roof is intended for an occupant load of more than 60 persons, at least 2 separate means of egress at the roof level, shall be provided from the roof to stairs designed in conformance with the requirements for exit stairs and located remote from each other, shall be provided.
- 3) Where a podium, terrace, platform or contained open space is provided, egress requirements shall conform to the appropriate requirements for rooms or suites in Article 9.9.7.4.
- 4) Except as required by Sentence (2), means of egress at the roof level, designed in conformance with the requirements for exits shall be provided from an occupancy on a roof serving more than a single dwelling unit.



Poll Questions



Poll Question #5

Would you consider these operable skylights an acceptable means of egress for a single unit roof-top patio?

- Yes = 17%
- No = 72%
- Unsure = 9%

112 Responses

Tripping hazard?

What about stair design?

What about guards when left open



Part 9 – Building Size

9.10.4. Building Size Determination

9.10.4.4. Roof-Top Enclosures

- 1) A rooftop enclosure shall not be considered as a storey in calculating the building height if the rooftop enclosure is provided for
 - a) elevator machinery,
 - b) a service room,
 - c) a stairway used for no purpose other than for access or egress,
 - d) an elevator lobby used for no purpose other than for access or egress, or
 - e) a combination thereof.



BC Code Appeal - BCAB #1921(2023)

[Link - BCAB #1921 - Province of British Columbia](#)

Re: Storeys in Building Height - Rooftop Structures (2023)

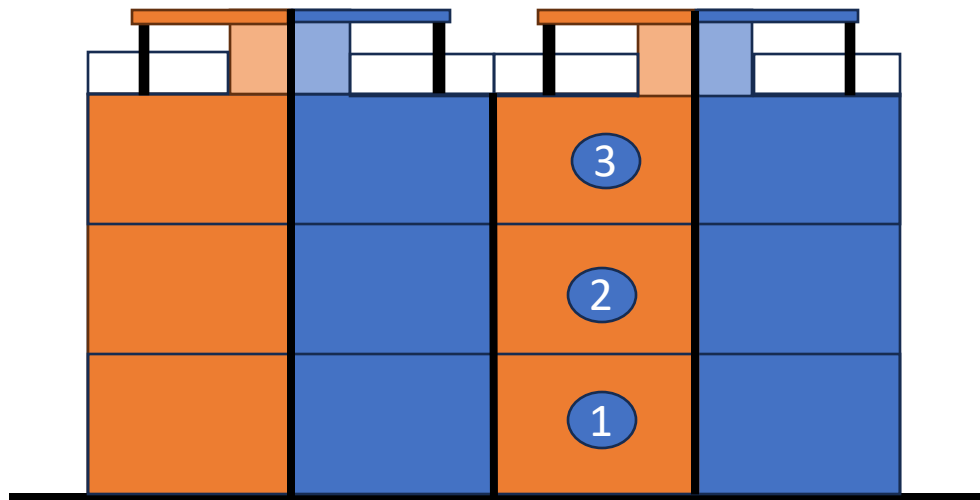
The project consists of three- and four-unit blocks of side-by-side townhouse dwellings. Each townhouse dwelling has three storeys of habitable space plus a private rooftop patio accessed by an enclosed stair leading to the storey just below.

Each rooftop patio contains the enclosed access stair, an open space approximately 40m² (430 sqft) in area, and a covered, partially enclosed area of approximately 10m² (108 sqft) adjacent and attached to the stair enclosure.

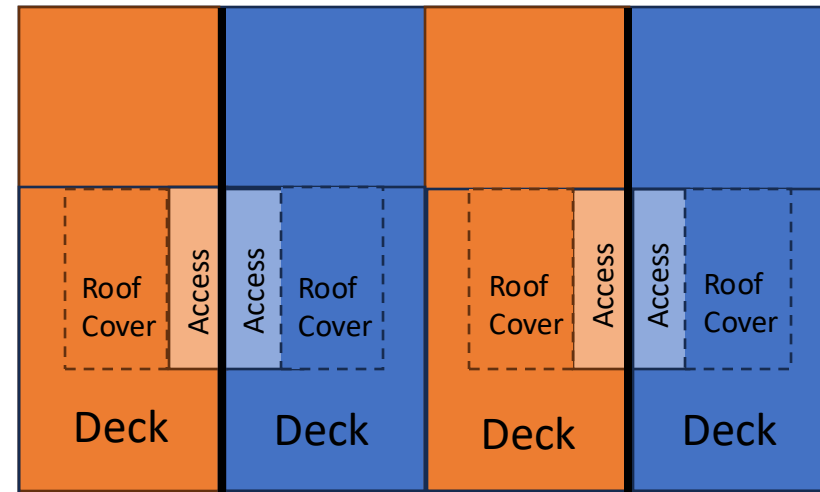


BC Code Appeal - BCAB #1921

Re: Storeys in Building Height - Rooftop Structures



Elevation



Roof Plan



BC Code Appeal - BCAB #1921

Decision being appealed (Local Authority's position)

The covered and partially enclosed area at each rooftop patio consists of a floor and a ceiling and meets the definition of storey. With this additional storey, each building is four storeys in building height.

Appellant's position

No portion of the rooftop patio should be considered as a floor. Further, the portion of each rooftop patio that is covered and partially enclosed is sufficiently open to allow smoke and heat venting. The covered portion of each rooftop patio should not be considered a storey and each building is, therefore, three storeys in building height.



BC Code Appeal - BCAB #1921

Appeal Board Decision #1921

The Board confirms the decision of the Local Authority. It is the determination of the Board that the covered and partially enclosed area at each rooftop patio meets the definition of storey.

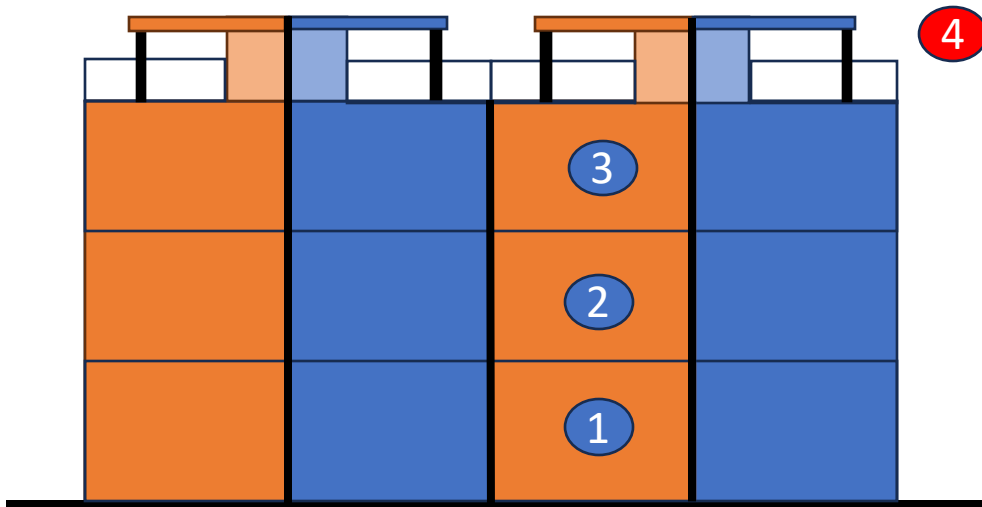
Reason for decision

When determining building height, the BC Building Code provides exceptions for specific structures on roofs. (Sentence 3.2.1.1.(1) and Sentence 9.10.4.4.(1), Division B.) **The proposed covered and partially enclosed areas do not meet these exceptions.**

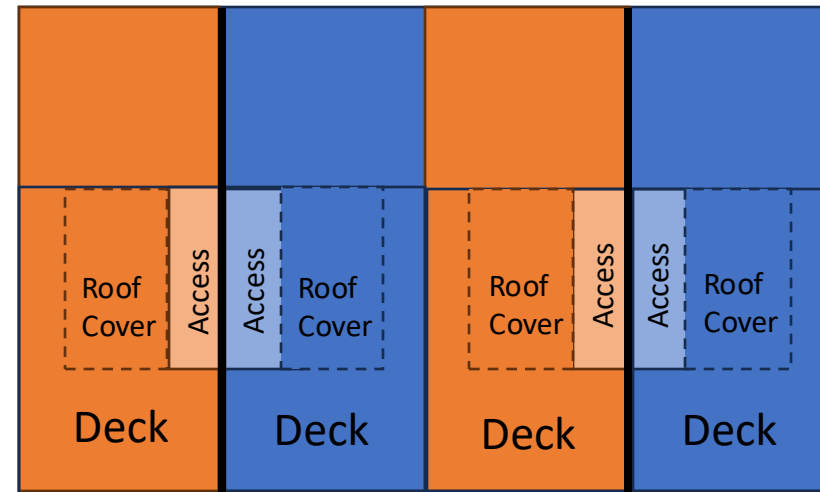


BC Code Appeal - BCAB #1921

Re: Storeys in Building Height - Rooftop Structures



Elevation



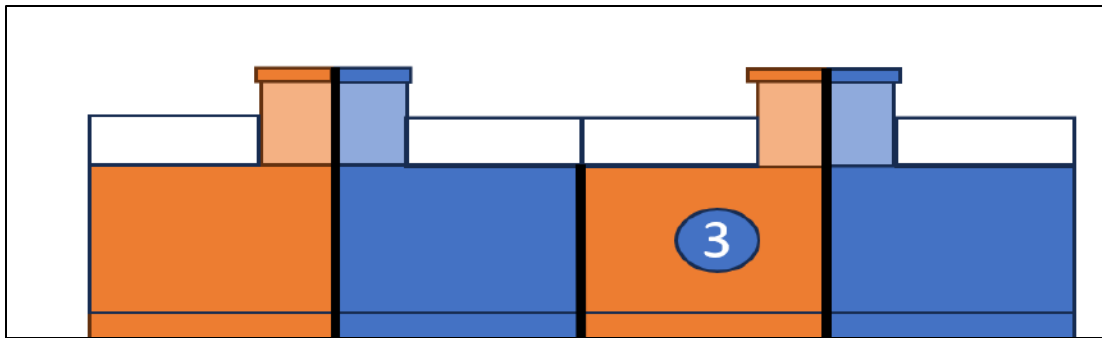
Roof Plan



Poll Questions

Impacts on the project?

- Fourth storey would move it from Part 9 to Part 3
- Addition of Fire Suppression system
- Architect required?
- Other?



Poll Question #6

If the Developer removed the roofed seating area from the patio design, then would you still consider this a fourth storey?

- Yes = 16%
- No = 74%
- Unsure = 9%

112 Responses

Comments - No roof cover structure then not considered a storey for height but still a roof occupancy



Next Lunch and Learns – 2025

February – Lateral and Seismic Load design? (basic code concepts)

March – Decks – from footing to final – Level 01 focus

Please forward any questions or suggestions for the presentation to kkunka@boabc.org.



Update on Ken Kunka

I have accepted a full-time position with the Building and Safety Standards Branch starting February as a Senior Codes Administrator.

This will end my involvement with the BOABC Lunch and Learn sessions after March and I look forward to assisting you in my new position in codes interpretation, development and education.

Thank you for your support during the last several years!!!



Questions - Contact Us



Session feedback & future topics
kkunka@boabc.org



Engagement & Communication Reminder

BOABC contacts
Zone Meetings
Zone Directors - Mentors
Member Forum Discussions

Contact Us

[Home](#) / [Contact Us](#)

Your Name (required)

Your Email (required)

Department

Please Choose

Subject

Your Message

Get in Touch

Please complete the form. We'll do everything we can to respond to you as quickly as possible. Our goal is to reply to every email within two business days.

Mailing Address

 Suite 224
186 - 8120 No. 2 Road
Richmond, BC
V7C 5J8

 604-270-9516

 info@boabc.org

Departments

Membership Services (Qualification, Certification, Exams etc.)
604-270-9516 - Jennifer Schwaertzel

Webinar survey to follow.