

TO: CHAIR AND MEMBERS
PLANNING AND DEVELOPMENT COMMITTEE **DATE:** 2020 June 17

FROM: DIRECTOR PLANNING AND BUILDING **FILE:** 42000 20
Reference: Bylaw Text Amdmt

**SUBJECT: PROPOSED ZONING BYLAW TEXT AMENDMENTS –
GROSS FLOOR AREA**

PURPOSE: To propose a number of text amendments to the Burnaby Zoning Bylaw regarding calculation of gross floor area.

RECOMMENDATION:

1. **THAT** Council be requested to authorize the preparation of a bylaw amending the Burnaby Zoning Bylaw, as outlined in Section 3.0 of this report, for advancement to a future Public Hearing.

REPORT

1.0 BACKGROUND INFORMATION

As part of the ongoing review of the Burnaby Zoning Bylaw, which usually takes place in the context of development enquiries and discussions regarding the intent of the Zoning Bylaw and the general need to update the Zoning Bylaw, text amendments are brought forward from time to time. These text amendment reports are submitted in order to provide clarification and improvements to the wording of the Zoning Bylaw, and to respond to changes in related legislation and changes in forms of development, land uses, and social trends.

This report presents four Zoning Bylaw text amendments regarding:

- 1) definitions of “balcony,” “sundeck,” and “covered deck”;
- 2) calculation of gross floor area;
- 3) calculation of gross floor area in a building with over-height ceilings; and,
- 4) definitions of “gross floor area,” and “floor area ratio.”

The proposed amendments are brought forward, in large part, in order to update older parts of the Zoning Bylaw that no longer reflect contemporary practices and perspectives, including the City’s climate action initiatives.

2.0 POLICY

The advancement of the proposed Zoning Bylaw amendment aligns with the following goals and sub-goals of the Corporate Strategic Plan:

- **A Connected Community**
 - Partnership – Work collaboratively with businesses, educational institutions, associations, other communities and governments.
- **A Healthy Community**
 - Healthy Life – Encourage opportunities for healthy living and well-being.
- **A Dynamic Community**
 - City facilities and infrastructure – Build and maintain infrastructure that meets the needs of our growing community.
- **A Thriving Organization**
 - Organizational culture – Ensure that our core values are reflected in our policies, programs and service delivery.

3.0 PROPOSED BYLAW TEXT AMENDMENTS

3.1 Definitions of “Balcony,” “Sundeck,” and “Covered Deck”

Issue

There is a need to amend the definitions of “balcony,” “sundeck,” and “covered deck” to include other appendages that have similar forms and functions, and to simplify the Zoning Bylaw by consolidating different terms used for similar appendages.

Discussion

According to Section 3 of the Zoning Bylaw, buildings’ appendages that are used as outdoor amenity areas are defined as follows:

“Balcony” means a cantilevered deck that projects from a building and that, except for a guard rail is not enclosed.

“Deck, covered” means a roofed deck that is not cantilevered, projects from a wall of a building, is accessible from the interior of a building and, except for a guard rail, is not enclosed.

“Sundeck” means a roofless deck that is not cantilevered, projects from a wall of a building, is accessible from the interior of the building and, except for a guard rail, is not enclosed.

The above definitions of balcony, sundeck, and covered deck do not account for all forms of balconies and decks, which result in inconsistencies in the application of the Zoning Bylaw, particularly the calculation of gross floor area (GFA).

In general, balconies, sundecks, and covered decks that are not enclosed are excluded from GFA in the RM Multiple Family Residential, C Commercial, M Industrial, B Business Centre, and P Institutional Districts. Similarly, in a number of R Residential and A Agricultural Districts, balconies, sundecks, and covered decks up to a maximum area of 8% of the permitted GFA are excluded from GFA. However, covered decks and sundecks located above a building or accessible from the exterior of a building, and recessed balconies, are not excluded from GFA as they do not meet the associated definitions in Section 3 of the Zoning Bylaw. The inclusion of these appendages in GFA is inequitable as they serve the same purpose as balconies, sundecks, and covered decks which are excluded from GFA.

The Zoning Bylaw requires that balconies, sundecks and covered decks shall not be enclosed with the exception of a guard rail. This requirement is to prevent illegal conversion of these outdoor spaces to habitable indoor areas by completely enclosing these appendages. However, there is a desire to partly enclose these areas by a wall on two or more sides for privacy purposes, which results in the inclusion of these appendages in GFA, as the current definitions for “balcony,” “sundeck,” and “covered deck” in the Zoning Bylaw prohibit any enclosure other than a guard rail.

To address the above mentioned issues, it is recommended that the definitions of “balcony,” “sundeck,” and “covered deck” be amended to include all forms of appendages that serve as usable outdoor areas. It is also recommended that these appendages be permitted to be enclosed but only to the extent that they remain permanently open to the exterior environment. This recommendation will allow further enclosure of these outdoor amenity areas beyond a guard rail for privacy purposes, while preventing the full enclosure of these appendages.

In addition, it is recommended that balconies, sundecks, and covered decks shall be accessible, either from the interior of the building or by exterior stairs. This recommendation is to ensure that deeper roof overhangs [i.e. more than 1.2 m (4.0 ft.) in depth] that are solely provided to improve a buildings’ energy performance will not be considered a balcony, sundeck, or covered deck. It should be noted that roof overhang structures can also be used as a balcony or deck, subject to BC Building Code requirements.

The Zoning Bylaw also uses a number of separate terms including “open porch,” “veranda,” “unroofed porch,” and “roofed deck” in reference to appendages that have a similar form and function as balconies, sundecks and covered decks. Use of different terms for the appendages without providing a definition in the Zoning Bylaw creates confusion for the users of the Zoning Bylaw. To simplify the reading and application of the Zoning Bylaw, and to create consistency, it is recommended that the terms “open porch,” “veranda,” “unroofed porch,” and “roofed deck” be replaced with the terms “balcony,” “sundeck,” and “covered deck,” as applicable. As such, any cantilevered deck with or without a roof will be considered a balcony, and any roofless, non-cantilevered appendages will be considered a sundeck. Any roofed non-cantilevered appendages will be considered a covered deck.

In addition, to be consistent with the term “covered deck” which describes a deck with roof covering, it is recommended that the term “uncovered deck” be used in place of the term “sundeck” throughout the Zoning Bylaw.

Recommended Bylaw Amendment

1. **THAT** the definition of “Balcony” in Section 3 of the Zoning Bylaw be repealed and replaced with wording the same or similar to the following:

“BALCONY” means an accessible cantilevered deck that projects from a building, or is recessed into the wall of a building above ground level, and is partially enclosed so as to remain permanently open to the exterior environment.

2. **THAT** the definition of “Deck, Covered” in Section 3 of the Zoning Bylaw be repealed and replaced with wording the same or similar to the following:

“DECK, COVERED” means an accessible roofed deck that is not cantilevered, and is partially enclosed so as to remain permanently open to the exterior environment. A covered deck does not include a terrace that is covered.

3. **THAT** the definition of “Sundeck” in Section 3 of the Zoning Bylaw be repealed and replaced with wording the same or similar to the following:

“DECK, UNCOVERED” means an accessible roofless deck that is not cantilevered, and is partially enclosed so as to remain permanently open to the exterior environment. An uncovered deck does not include a terrace that is roofless.

4. **THAT** subsection (c) under the definition of “Depth, Principal Building” in Section 3 of the Zoning Bylaw be repealed and replaced with wording the same or similar to the following:

- c) balconies, covered decks, uncovered decks, canopies, and sunshades, including supporting structures, up to 1.2 m (3.94 ft.) in length.

5. **THAT** Section 6.12(1)(d) of the Zoning Bylaw be repealed and replaced with wording the same or similar to the following:

- (d) Balconies, covered decks, uncovered decks, canopies, and sunshades, provided such projections, including supporting structures, shall not exceed 1.2 m (3.94 ft.), or 50 percent of the width of a required side yard.

6. **THAT** the term “unroofed porches” be replaced with the term “uncovered decks” in the definition of “Building, Front Line of ” and “Building, Rear Line of” in Section 3 of the Zoning Bylaw.

7. **THAT** the term “roofed deck” be replaced with the term “covered deck” in the definition of “Story, Half” in Section 3 of the Zoning Bylaw.

3.2 Calculation of Gross Floor Area

Section 6.20 of the Zoning Bylaw, which governs calculation of GFA and floor area ratio (FAR), was first introduced in 1991. Since then, it has received periodic amendments in order to provide greater clarity and respond to changing forms of development. The purpose of calculating GFA is to regulate building bulk and development density in the RM, B, and A Districts, and in a number of R, C, M, and P Districts throughout the City.

In recent years, it has become apparent that a thorough review of GFA regulations is necessary. The purpose of this review is to:

- 1) simplify and add further clarity to the wording of the Zoning Bylaw;
- 2) maintain equity in treatment of similar forms of development throughout the City;
- 3) allow for developments that meet the City’s current and future housing needs while maintaining neighbourhood character;
- 4) improve consistency in application of the Zoning Bylaw; and
- 5) improve building’s energy performance by providing wall thickness exemptions in support of the City’s climate action initiatives and zero-emissions developments.

Section 3.2 of this report reviews a number of issues pertaining to the existing GFA regulations under Section 6.20 of the Zoning Bylaw, and provides recommendations to address these issues.

Currently, Section 6.20 of the Zoning Bylaw specifies the floor areas that are included in calculation of GFA, as well as the floor areas that are excluded from GFA. In order to simplify the reading of the Zoning Bylaw, it is recommended that the definition of “gross floor area” be amended to specify the floor areas that are included in the calculation of GFA, and that Section 6.20 be amended to specify only those floor areas to be excluded from GFA. The proposed Section 6.20 would be comprised of three sub-sections. Recognising that some GFA exclusions are applicable to all forms of development, and to avoid repetition, the first sub-section would specify all floor areas to be excluded from GFA in all districts where density is regulated by GFA. The second sub-section would specify the additional floor areas to be excluded from GFA in the R and A Districts, with the exception of permitted category A supportive housing facilities. The third sub-section would specify the additional floor areas to be excluded from GFA in districts other than the R and A Districts, as well as in category A supportive housing facilities permitted in the R Districts.

Category A supportive housing facilities are permitted in a number of R Districts, as well as in some of the RM and C Districts. Currently, the facilities permitted in the RM and C Districts benefit from the GFA exclusion of parking areas, amenity spaces, and a number of other non-habitable areas. These exclusions allow the floor area of habitable spaces to be maximized to provide more living units in these facilities. To maintain consistency in the treatment of these facilities, it is recommended that the same GFA exclusions be applied to category A supportive

housing facilities in the R Districts. The permitted GFA exclusions would allow for more total floor area for these facilities in the R Districts; however, the building bulk would be controlled by other requirements of the Zoning Bylaw, such as building heights and setbacks through a CD Comprehensive Development rezoning process, to ensure that the building fits within single and two family residential neighbourhoods.

3.2.1 Exterior Wall Thickness

According to the Zoning Bylaw, the total area of all floors measured to the extreme outer limits of the building, including exterior wall thickness, shall be included in the calculation of GFA. The inclusion of exterior wall thickness in GFA has become a concern as it creates barriers for the construction of highly energy efficient buildings by reducing salable floor area. In general, highly energy efficient buildings contain thicker exterior wall assemblies due to the use of thicker exterior insulation, which takes up a considerable amount of salable floor area. As such, it is recommended that additional exterior wall thickness used for the provision of insulating materials be excluded from GFA, in order to achieve higher thermal energy performance.

Accordingly, it is recommended that the excluded exterior wall thickness be calculated as follows:

- Considering that a typical exterior wall thickness, excluding the exterior cladding, in wood-frame constructions is approximately 0.165 m (6.5 in.), any insulation in excess of this wall thickness will improve buildings' thermal performance. As such, it is recommended that in wood-frame exterior wall assemblies, wall thickness in excess of 0.165 m (6.5 in.) shall be excluded from GFA, provided that the excess wall thickness is used for the provision of insulating materials.
- In all other types of exterior wall assemblies, any additional insulation added to the exterior walls' structural members will improve the buildings' thermal performance. As such, it is recommended that in all exterior wall assemblies other than wood-frame wall assemblies, any portion of the exterior wall thickness that is exclusively used for the provision of insulating materials shall be excluded from GFA.

Furthermore, to encourage the use of high quality exterior cladding, such as brick, to improve buildings' thermal performance and aesthetics, and to protect exterior walls from moisture and other environmental elements, it is recommended that any non-structural exterior cladding be excluded from GFA. This recommendation is to ensure that buildings with thicker exterior cladding will not be penalized by including the cladding's thickness in the calculation of GFA.

3.2.2 Access

According to the Zoning Bylaw, all areas providing access, such as corridors, hallways, landings, foyers, staircases and stairwells, shall be included in the calculation of GFA. However, Section 6.20(5)(d) allows for exclusion of steps and stairs that are permitted under Section 6.12 as projections into required yards, in the RM, C, M, B, and P Districts. This requirement is to ensure

that exterior stairs and steps, and intermediate landings that are not fully enclosed are not included in GFA, given that such forms of access do not contribute to the building's bulk.

The exclusion of exterior stairs and steps is applicable to single and two family dwellings in the RM, C, M, B, and P Districts, where they are permitted, but not in the R and A Districts despite their similar forms and function. Therefore, it is recommended that exterior access areas that are not fully enclosed be excluded from GFA in all districts where density is regulated by GFA. This recommendation is to maintain equity and consistency in the treatment of unenclosed exterior access areas throughout the City.

The Zoning Bylaw allows for the exclusion of various accessory service facilities, such as electrical/mechanical facilities and amenity spaces from GFA to encourage the provision of these service areas. To further facilitate the provision of these areas, it is recommended that areas exclusively providing access to these service facilities shall also be excluded from GFA. Examples of this situation are a corridor or steps that exclusively provide access to an amenity space in a multiple family residential building.

According to the Zoning Bylaw, all access areas including elevators shall be included in GFA. As such, in a building containing an elevator, the area of the elevator shaft is included in the GFA of each floor. However, in some developments, more than one elevator may be incorporated into the building design to provide a separate access to different sections of the building. An example of this situation is a 20-storey building containing two elevators, where one elevator provides access to floors 1 through 15, and the second elevator provides access to the top five floors without stopping on any of the floors below. This may also be the case for mixed-use buildings where residential elevators may not stop at any of the commercial floors.

In these circumstances, the inclusion of the elevator shafts' area on the floors where the elevator does not stop, is considered onerous. As such, it is recommended that the area of an elevator shaft on floors where the elevator does not provide general access be excluded from GFA. It should be noted that these floors may still be accessible during emergencies, or for special circumstances when access is necessary.

All other access areas that do not meet the requirements of Section 3.2.2 of this report shall be included in GFA.

3.2.3 Crawl Spaces and Attic Spaces

According to Sections 6.20(6)(a) and 6.20(6)(b) of the Zoning Bylaw, crawl spaces and attic spaces are excluded from GFA in the R1 through R5, R9 through R12, and A1 through A3 Districts. These areas that are located at or below natural grade (crawl spaces), or above a storey or a half-storey (attic spaces), have a maximum vertical clear height of less than 1.2 m (3.9 ft.) with no permanent means of access thereto. These requirements which restrict the use of these spaces as habitable areas, result in their exclusion from GFA in most R and A Districts.

Crawl spaces and attic spaces are generally provided in single and two family dwellings, which are permitted in the R and A Districts. However, they can be found in other forms of development,

including townhouses, commercial and industrial buildings, and single and two family dwellings in the RM and M4 Districts. In order to maintain equity in treatment of crawl spaces and attic spaces, it is recommended that these areas be excluded from GFA in all forms of development, and in all districts where density is regulated by GFA.

3.2.4 Architectural Features, Landscape Features, and Bay Windows

According to the Zoning Bylaw, architectural features, landscape features, and bay windows are excluded from GFA in all districts, with the exception of R and A Districts. Architectural features, such as eaves, cornices, and bay windows, generally improve the buildings' facade without adding to the floor area. In addition, landscape features such as trellises and ornaments are not considered a building, and therefore ought to be excluded from GFA.

Considering that architectural features, landscape features, and bay windows (as defined in the Zoning Bylaw) are common in many forms of development, it is recommended that these features be excluded from GFA in all districts where density is regulated by GFA, to maintain consistency throughout the City.

3.2.5 Exterior Appendages including Balconies, Sundecks, and Covered Decks

Section 6.20 of the Zoning Bylaw requires that all enclosed balconies, sundecks, porches and verandas are included as GFA in all districts, with the exception that balconies, sundecks and covered decks, up to a maximum of 8% of the permitted GFA in a number of R and A Districts may be excluded from GFA. This requirement is inconsistent with the current definitions of balconies, sundecks, and covered decks which prohibit the enclosure of these appendages, except for a guard rail, and creates confusion regarding the calculation of GFA, especially in the absence of a definition for the term "enclosed".

Balconies, sundecks and covered decks as outdoor amenity areas are required to be permanently open to the exterior environment. However, there is sometimes a desire to enclose these appendages for privacy purposes. As such, defining a maximum percentage of enclosure for these spaces is critical to ensure these appendages continue to be used as outdoor areas while providing the desired privacy.

Illegal conversion of balconies and covered decks to habitable areas by completely enclosing these appendages has been an issue in single and two family dwellings. However, in other forms of development (i.e. multiple family residential) enclosure of these spaces is further prohibited by registering a Section 219 Covenant on title as part of the development review process, and also by strata corporations. To address the above mentioned issues, it is recommended that balconies and covered decks be permitted to have up to a maximum 60% of their perimeter enclosed, except for open (pervious) guards, in single and two family dwellings, and to remain permanently open to the exterior environment in other forms of development.

In order to maintain consistency in treatment of balconies, sun decks and covered decks throughout the City, and to clarify the application of the Zoning Bylaw, the following recommendations are provided:

- a) Sun decks, balconies and terraces that are uncovered, and are not fully enclosed shall be excluded from GFA, in all districts where density is regulated by GFA. The uncovered appendages which are not completely enclosed, do not contribute to the bulk of a building, and therefore should not be included as GFA.
- b) Decks, balconies, and terraces that are covered but are not fully enclosed, shall be excluded from GFA in all districts, with the exception of the R and A Districts. This requirement shall also apply to category A supportive housing facilities in the R Districts. The Zoning Bylaw allows amenity spaces in developments other than single and two family dwellings to be excluded from GFA. Given that decks, balconies and terraces are considered outdoor areas, they should not be included in GFA, provided that they remain permanently open to the exterior environment.
- c) Decks, balconies, and terraces that are covered, whether they are attached to a building or detached, up to a maximum 14% of the permitted above grade floor area (AGFA), shall be excluded from GFA in the R and A Districts, provided that except for open guards with a maximum height of 1.07 m (3.5 ft.), not more than 60% of their perimeters are enclosed. This requirement would not apply to category A supportive housing facilities permitted in the R Districts. An unenclosed covered deck or terrace that is detached from a building, such as a gazebo, is intended to be used as an amenity area, and therefore should be treated similarly to other covered appendages with regard to the calculation of GFA.

According to Section 6.20 of the Zoning Bylaw, balconies, sun decks and covered decks up to a maximum 8% of the permitted GFA shall be excluded from GFA in a number of R and A Districts. In addition, covered porches up to a maximum area of 3.7 m² (39.8 sq. ft.) for a dwelling unit shall also be excluded from GFA, subject to a number of conditions. These requirements are to encourage the construction of exterior appendages as outdoor amenity spaces in single and two family dwellings.

In 2019 March 25, Council adopted an amendment to the Zoning Bylaw which allows for the construction of a cellar not exceeding the floor area of the storey next above it, on a lot developed with a single family dwelling, in a number of R Districts. Prior to adoption of the amendment bylaw, the permitted GFA on each lot was the lower of either a maximum permitted floor area or an established percentage of the lot area. However, following adoption of the amendment bylaw, the Zoning Bylaw now stipulates that the maximum GFA on each lot is the sum of the building's AGFA and the floor area of the cellar.

Considering that the permitted GFA on each lot varies depending on the floor area of the storey above a cellar, calculation of the 8% GFA exclusion for balconies, sun decks, and covered decks has become challenging. Therefore, it is recommended that the floor area exclusion for balconies, sun decks and covered decks be calculated based on a percentage of

AGFA which does not vary depending on the size of a building. It should be noted that 14% of AGFA is approximately equivalent to 8% of GFA (being the currently permitted GFA exclusion for balconies, sun decks, and covered decks) plus 3.7 m² (39.8 sq. ft.) (being the currently permitted GFA exclusion for covered porches).

- d) Decks and terraces that are covered with a vertical clear height of less than 1.8 m (5.91 ft.), measured from ground level to the underside of the roof, structure or floor joist covering the deck or terrace, shall be excluded from GFA in the R and A Districts. This recommendation is to ensure that these under-height outdoor areas, which are generally used for storage rather than as an amenity area, will not be included as GFA.

The Zoning Bylaw, defines “terrace” as a paved, planted or constructed area that is not more than 600 mm (1.97 ft.) above the adjacent finished ground level. This broad definition includes any paved or planted areas that meet the required elevation, such as a paved or planted sloped area under a deck structure. To ensure that only covered terraces with a vertical height of 1.8 m (5.91 ft.) or more that can be utilized as outdoor amenity areas will be included in calculation of GFA in the R and A Districts, it is recommended that the definition of “terrace” be amended. The recommended definition defines “terrace” as a level surface with an elevation of not more than 600 mm (1.97 ft.) that is paved, planted or constructed, to exclude sloped areas, or other areas that cannot be utilized as outdoor amenity areas.

3.2.6 Private Hospitals and Supportive Housing Facilities’ Amenity Spaces

According to Section 6.20(5)(i) of the Zoning Bylaw, amenity spaces accessory to private hospitals and category A or B supportive housing facilities not exceeding 13.6% of the floor area shall be excluded from GFA in the RM and P Districts. Category A supportive housing facilities are also permitted in a number of R Districts, and both category A and B supportive housing facilities are permitted in the C8 and C9 Urban Village Commercial Districts. In order to maintain consistency in treatment of supportive housing facilities’ amenity spaces throughout the City, it is recommended that amenity spaces not exceeding 13.6% of the floor area be excluded from GFA in the districts where supportive housing facilities are permitted, and density is regulated by GFA. It is further recommended that the current wording of this section of the Zoning Bylaw be amended to clarify that the exempted amenity spaces shall not exceed 13.6 percent of the maximum permitted gross floor area.

3.2.7 Garage and Carport in the R Districts

Sections 6.20(3) and 6.20(6)(c) of the Zoning Bylaw stipulate that a maximum of 42.0 m² (452.1 sq. ft.) of a garage or carport shall be excluded from GFA in a number of R and A Districts, with some exceptions. These exceptions include:

- a garage or carport located in a cellar, in the R1, R2, R3, R4, R5 and R9 Districts on a lot containing a single family dwelling; this requirement is to ensure that a cellar does not exceed the floor area of the storey directly above, following the addition of a maximum 42.0 m² (452.1 sq. ft.) for a garage or carport.

- in the R10 and R11 Districts, an attached garage or carport on a lot with lane access, or a garage or carport that is not located within 9.0 m (29.5 ft.) of the rear lot line; this requirement is to encourage the construction of a detached garage or carport on a lot with lane access, as well as to reduce the building bulk by requiring an adequate separation between a garage or carport and a principal building on a lot where access to a detached garage can be provided from a lane. In addition, the 9.0 m (29.5 ft.) siting requirement is to discourage the construction of an extended driveway to access a garage that is located substantially away from a lane.

The GFA exclusion of a portion of a garage and carport accessory to a single or two family dwelling is to maximize the floor area of habitable space. The GFA exclusion of a maximum 42.0 m² (452.1 sq. ft.) for a garage and carport is consistent with the City's objectives, and meets the needs of single and two family developments in Burnaby. As such, it is recommended that the current provisions of the Zoning Bylaw allowing the GFA exclusion of a maximum 42.0 m² (452.1 sq. ft.) for a garage and carport, except where it is located in a cellar in the R1 through R5, and R9 Districts on a lot developed with a single family dwelling, remain unchanged.

Currently, the Zoning Bylaw requires that a detached garage and carport in the R10 and R11 Districts shall be located within 9.0 m (29.5 ft.) of the rear lot line in order to have a maximum 42.0 m² (452.1 sq. ft.) of the garage or carport excluded from GFA. On a lot with extreme grades, meeting this requirement may not be feasible, considering that a maximum grade for a driveway accessing the garage shall not exceed 15%. In such circumstances, the applicants lose the benefit of a 42.0 m² (452.1 sq. ft.) GFA exclusion despite construction of a detached garage or carport with an access from a lane. As such, to maintain equity in treatment of detached garages or carports, it is recommended that the 9.0 m (29.5 ft.) siting requirement in the R10 and R11 Districts be repealed.

Should Council adopt the recommended bylaw amendment, a maximum of 42.0 m² (452.1 sq. ft.) of a garage or carport would be excluded from GFA where a detached garage or carport is constructed on a lot with lane access, regardless of its distance from the property's rear lot line. It should be noted that a detached garage and carport will continue to be subject to other siting requirements of the Zoning Bylaw, including setbacks from property lines, and a minimum 4.5 m (14.8 ft.) setback from a principal building.

In addition, to address those properties where access from a lane is not feasible due to extreme grades, it is recommended that in all R and A Districts where density is regulated by GFA, a maximum of 42.0 m² (452.1 sq. ft.) be excluded from GFA for an attached garage or carport, if the Director of Engineering is satisfied that construction of an access from the lane is not feasible.

It should be noted that the length of a driveway providing access to a detached garage or carport will continue to be subject to the impervious surface requirement of the Zoning Bylaw which requires that not more than 70% of the total lot area in the R Districts shall be covered by impervious materials.

3.2.8 Accessory Service Facilities

According to Section 6.20(5) of the Zoning Bylaw, accessory service facilities shall be excluded from GFA in the RM, C, M, B, and P Districts. This exclusion encourages the provision of accessory operational and/or supportive services, while maximizing the floor area of habitable or employment-related spaces. However, there are some inconsistencies in the application of GFA exclusions with regard to accessory service facilities in various districts. To maintain consistency in the application of the Zoning Bylaw, the following GFA exclusions for accessory service facilities are recommended in all districts other than the R and A Districts. These exclusions shall also apply to category A supportive housing facilities in the R Districts:

- Areas exclusively used to provide accessory electrical, mechanical, heating, ventilating, or similar service facilities:

Sections 6.20(5)(c) and 6.20(5)(f) of the Zoning Bylaw stipulate that any portion of a basement or cellar containing accessory heating facilities, or any portion of a penthouse containing ventilating machinery shall be excluded from GFA. These facilities that are necessary for the operation of a building may take up a considerable percentage of floor area that otherwise could be used as habitable space, or for industrial, commercial or office purposes. Considering that these facilities can be located anywhere within the building, it is recommended that all accessory service facilities be exempted from GFA, regardless of their location.

- Areas used for accessory end-of-trip cyclist facilities:

According to Section 6.20(5)(c) of the Zoning Bylaw any portion of a basement or cellar containing end-of-trip cyclist facilities shall be excluded from GFA. Considering that there is a general desire to promote cycling as a means of transportation within the City, it is recommended that these facilities be excluded from GFA, regardless of their location within the building.

- Areas used for parking of bicycles, accessory to a principal use:

Currently there is no requirement in the Zoning Bylaw to exclude bicycle parking areas from GFA. However, to promote cycling as a means of transportation throughout the City, it is recommended that parking areas for bicycles, accessory to any multiple family residential, industrial, commercial, or institutional use be excluded from GFA.

- Amenity spaces:

According to Section 6.20(5)(h) of the Zoning Bylaw, amenity spaces are excluded from GFA in the RM and P Districts. Amenity spaces are communal areas provided for the exclusive use of the residents of multiple family dwellings. Considering that rental dwelling units are permitted in the C Districts, amenity spaces provided for the exclusive

use of their residents should also be excluded from GFA, similar to other multiple family dwellings.

- Storage areas for scooters in supportive housing facilities:

Section 800.4(5.2) of the Zoning Bylaw requires that one electrically serviced motorized scooter storage space shall be provided for each four living units in category A and B supportive housing facilities. Considering that scooter storage areas are similar in function to parking areas for vehicles and bicycles, they should be excluded from GFA, regardless of their location within the building.

Section 6.20(5) of the Zoning Bylaw allows for GFA exclusions of a number of other accessory service facilities such as storage located in a basement, accessory laundry facilities, accessory parking, and a portion of adaptable units, in the RM, C, M, B, and P Districts. Considering that these provisions are consistent with the City's objectives and meet today's needs for different forms of development, it is recommended that these provisions remain unchanged.

3.2.9 Child care facilities in a basement or cellar:

Section 6.20(5)(g) of the Zoning Bylaw stipulates that the floor area of child care facilities located in a basement or cellar shall be excluded from GFA in the RM, C, M, B, and P Districts. This requirement is consistent with other provisions of the Zoning Bylaw which exempt accessory mechanical/heating, laundry facilities, recreational areas, storage and end-of-trip facilities from GFA, provided that they are located in a basement or cellar.

The GFA exemption of child care facilities in a basement or cellar was provided as an incentive to provide more child care spaces. However, there has been little interest from service providers to locate child care facilities in a basement or cellar due to limited access to adequate sunlight, and other issues. As such, it is recommended that the GFA exclusion of child care facilities in a basement or cellar be removed from the Zoning Bylaw.

Recommended Bylaw Amendments

8. **THAT** Section 6.20 of the Zoning Bylaw be repealed and replaced with wording the same or similar to the following:

6.20 Calculation of Gross Floor Area

- (1) *For the purpose of calculating gross floor area, the following shall be excluded:*

- (a) *in wood-frame exterior wall assemblies, any portion of exterior wall thickness in excess of 0.165 m (6.5 in.), provided that the excess wall thickness is used for the provision of insulating materials;*

- (b) *in all exterior wall assemblies other than those referred to in paragraph 6.20(1)(a), any portion of exterior wall thickness that is exclusively used for the provision of insulating materials;*
 - (c) *any non-structural exterior claddings;*
 - (d) *exterior access areas such as corridors, landings, staircases, stairways, and similar areas, provided that they are not fully enclosed;*
 - (e) *crawl spaces;*
 - (f) *areas of undeveloped floors located above a storey or a half-storey, or adjacent to a half-storey, with a maximum vertical clear height of 1.2 m (3.9 ft.), and no permanent means of access other than a hatch;*
 - (g) *exterior architectural features including belt courses, cornices, eaves, gutters, sills, pilasters, and similar features;*
 - (h) *chimneys;*
 - (i) *bay windows;*
 - (j) *balconies and terraces which are not covered, and uncovered decks, provided that they are not fully enclosed; and*
 - (k) *arbors, trellises, and similar landscape features.*
- (2) *In addition to the exclusions listed in Section 6.20(1), for the purpose of calculating gross floor area in the R and A Districts, with the exception of category A supportive housing facilities, the following shall be excluded:*
- (a) *garages or carports up to a maximum area of 42.0 m² (452.1 sq. ft.), except:*
 - i) *in the R1, R2, R3, R4, R5, and R9 Districts on a lot developed with a single family dwelling, where such garage or carport is located in a cellar; and*
 - ii) *in the R10 and R11 Districts, where such garage or carport is attached to a principal building on a lot with lane access. In cases where the Director Engineering is satisfied that access from a lane is not feasible due to an extreme grade, or other restrictions, up to a maximum area of 42.0 m² (452.1 sq. ft.) of the garage or carport attached to the principal building shall be excluded from gross floor area.*

- (b) balconies and terraces which are covered, and covered decks, whether attached to a building or detached, up to a maximum area of 14% of the permitted above grade floor area, provided that except for the required open guards with a maximum height of 1.07 m (3.5 ft.), not more than 60% of their perimeters are enclosed; and
 - (c) any portion of a deck or terrace that is covered, and has a vertical clear height of less than 1.8 m (5.91 ft.), measured from ground level to the underside of the roof, structure or floor joist covering the deck or terrace, provided that not more than 60% of its perimeter is enclosed.
- (3) In addition to the exclusions listed in Section 6.20(1), for the purpose of calculating gross floor area for category A supportive housing facilities permitted in the R Districts, and in districts other than the R and A Districts, the following shall be excluded:
 - (a) areas that exclusively provide access to areas excluded from gross floor area, in accordance with Sections 6.20(1) and 6.20(3);
 - (b) areas of an elevator shaft on a floor to which the elevator does not provide general access, except in special circumstances;
 - (c) balconies and terraces which are covered, and covered decks, provided that they are not fully enclosed;
 - (d) areas exclusively used to provide accessory communal recycling and garbage storage, electrical, mechanical, heating, and ventilating, or similar service facilities accessory to a principal use;
 - (e) amenity spaces;
 - (f) areas exclusively used for communal laundry facilities that are accessory to a principal use;
 - (g) any portion of a basement or cellar used exclusively for storage, or laundry facilities that are accessory to a principal use;
 - (h) any portion of a basement or cellar used for non-commercial recreational and social purposes that are accessory to a principal use;
 - (i) areas used for parking of vehicles and bicycles that are accessory to a principal use;

- (j) *end-of-trip cyclist facilities that are accessory to a principal use;*
 - (k) *areas used exclusively for storage of scooters in supportive housing facilities;*
 - (l) *private hospital and supportive housing facility amenity spaces not exceeding 13.6% of the maximum permitted gross floor area; and*
 - (m) *1.86 m² (20 sq. ft.) of floor area for every studio and one bedroom adaptable housing unit, plus 0.93 m² (10 sq. ft.) for every additional adaptable bedroom in excess of the first adaptable bedroom with an adaptable housing unit.*
- 9. **THAT** Sections 110.4(3), and 111.4(3) of the Zoning Bylaw be repealed and replaced with wording the same or similar to the following:
 - (3) *A maximum of 42.0 m² (452.1 sq. ft.) of a garage or carport shall not be included as gross floor area, except where such garage or carport is attached to a principal building on a lot with lane access. In cases where the Director Engineering is satisfied that access from a lane is not feasible due to an extreme grade, or other restrictions, a maximum 42.0 m² (452.1 sq. ft.) of the garage or carport attached to the principal building shall not be included as gross floor area.*
- 10. **THAT** Section 111.4(4) of the Zoning Bylaw (R11 Residential District) be amended with wording the same or similar to the following:
 - (4) *The gross floor area of all accessory buildings on a lot shall not exceed 56.0 m² (602.8 sq. ft.).*
- 11. **THAT** the definition of “Terrace” in Section 3 of the Zoning Bylaw be repealed and replaced with wording the same or similar to the following:

“TERRACE” means a level surface that is paved, planted, or constructed, and is not more than 600 mm (1.97 ft.) above the adjacent finished ground level.

3.3 Calculation of Gross Floor Area in a Building with Over-height Ceilings

Issue

There is a need to amend the GFA calculation of any portion of a building with an over-height ceiling in single and two family dwellings, in order to include any over-height area that has a ceiling height equal to two or more floors somewhere else in the building.

Discussion

Section 6.20(4) of the Zoning Bylaw requires that in single- and two-family dwellings, GFA for any portion of a building, with the exception of staircases and stairwells, where the height from the floor to the ceiling directly above exceeds 4.5 m (14.8 ft.) be calculated as the cumulative floor area of such portions multiplied by two, less 9.3 m² (100.1 sq. ft.) for each dwelling unit on the lot. The purpose of this provision is to control the overuse of high ceilings which may contribute to the overall bulk of a building, and to discourage illegal conversion of “open to below” areas to create an additional floor, by double counting the floor area of such over-height portions.

According to this requirement, 9.3 m² (100.1 sq. ft.) shall be exempted from the GFA calculation of such portions to prevent penalizing vaulted ceilings that do not significantly add to the bulk of a building.

This provision was originally introduced to calculate GFA of any portion of a building where the height from the floor to the ceiling is approximately equivalent to a maximum of two floors. To include building designs where an over-height portion of a building could potentially contain more than two floors, it is recommended that Section 6.20(4) of the Zoning Bylaw be amended by calculating GFA of such portions as the cumulative floor area of such a portion, multiplied by the number of floors of the section of the building adjacent to the over-height portions, less 9.3 m² (100.1 sq. ft.).

It is further recommended that Section 6.20(4) be re-numbered as the new Section 6.20.1, as it regulates GFA calculation of over-height portions of a building, rather than GFA exclusions specifically.

Recommended Bylaw Amendment

12. **THAT** Section 6.20.1 be added to the Zoning Bylaw with wording the same or similar to the following:

6.20.1 Calculation of Gross Floor Area in a Building with Over-height Ceilings

For single family and two family dwellings, gross floor area for any portion of a building, with the exception of staircases, where the height from the floor to the ceiling directly above exceeds 4.5 m (14.8 ft.) shall be calculated in accordance with the following:

- (a) cumulative floor area of such over-height portion(s) of the building, multiplied by the number of floors of the adjacent section within the building. For the purpose of this section of the Bylaw, where the number of floors of the adjacent section on any side of the over-height portion(s) are not equal, the greater number of floors shall apply,

- (b) less 9.3 m² (100.1 sq. ft.) for each dwelling unit with a ceiling which exceeds the height specified in this section.

3.4 Definitions of “gross floor area” and “floor area ratio”

Issue

There is a need to amend the definition of “Floor Area, Gross” in order to clarify all floor area types included in the calculation of GFA. As “Floor Area Ratio” is closely related to GFA, this term also requires a corresponding update.

Discussion

Currently, “Floor Area, Gross” is defined as “the total area of all the floors measured to the extreme outer limits of the building in accordance with the regulations set out in Section 6.20.” Section 6.20 specifies all areas of a floor that are included in GFA, as well as the areas that are excluded from GFA.

To simplify the Zoning Bylaw, it is recommended that the definition of “gross floor area” be amended as “the areas of all floors within the outer limits of all buildings on a lot, subject to certain exclusions. As discussed in section 3.2 of this report, Section 6.20 of the Zoning Bylaw would include all areas that are excluded from GFA.

In addition, “Floor Area Ratio” is currently defined as “the figure obtained when the GFA of all buildings on a lot less the exclusions permitted in accordance with Section 6.20 is divided by the area of the lot”. Considering that the exclusions are embedded in calculation of GFA, in order to simplify the Zoning Bylaw, it is recommended that the definition of “Floor Area Ratio” be amended by deleting the reference to “GFA exclusions.”

Recommended Bylaw Amendment

13. **THAT** the definition of “Floor Area, Gross” in Section 3 of the Zoning Bylaw be repealed and replaced with wording the same or similar to the following:

“FLOOR AREA, GROSS” means, subject to Sections 6.20 and 6.20.1, the total area of all floors, measured to the outer limits of all buildings on a lot.

14. **THAT** the definition of “Floor Area Ratio” in Section 3 of the Zoning Bylaw be repealed and replaced with wording the same or similar to the following:

“FLOOR AREA RATIO” means the figure obtained by dividing the gross floor area by the area of the lot.

To: Planning and Development Committee
From: Director Planning and Building
Re: Proposed Zoning Bylaw Text Amendments – Gross Floor Area
2020 June 17 Page 19

4.0 CONCLUSION

The above Zoning Bylaw text amendments are proposed in order to clarify certain aspects of the Zoning Bylaw, make amendments in support of existing practices and Council policies, and achieve other regulatory changes. It is recommended that Council approve the above proposed text amendments, as outlined in Section 3.0 of this report, for advancement to a future Public Hearing.



E. W. Kozak, Director
PLANNING AND BUILDING

PS:

cc: City Manager
City Clerk
City Solicitor
Director Engineering
Chief Building Inspector