

For discussion
on 19 December 2008

**Legislative Council
Panel on Development**

**Public Engagement on Measures to Foster a Quality and
Sustainable Built Environment**

INTRODUCTION

This paper aims to seek Members' views on a number of policy options affecting the quality and sustainability of our built environment and invite Members' continued involvement in the public discussion on the subject in a public engagement exercise to be launched by the Administration in collaboration with the Council for Sustainable Development ("SDC") to gauge public views.

BACKGROUND

2. In recent years, there are rising public concerns over the quality and sustainability of the built environment. Issues regarding the bulk and height of buildings, air ventilation, greening and energy efficiency in buildings have been discussed amongst building professionals, environmental green groups, the Legislative Council ("LegCo") as well as the general public. A number of measures have been undertaken to address these concerns, such as the conduct of air ventilation assessment ("AVA") and visual impact assessments during the development approval process; progressively reviewing the Outline Zoning Plans to introduce building height restrictions and other development parameters; and imposing more precise development parameters on Government land sale sites etc. However, there are demands from the LegCo and environmental concern groups for the Government to review and rationalise its policies and take further steps to create a quality and sustainable built environment. More specifically, following from the incident on the Sai Wan Ho Development on Inland Lot No. 8955 (aka "Grand Promenade"), the public's attention is increasingly focused on the

fact that whilst the above-mentioned measures are taken to reduce the building bulk, developers are entitled to enjoy various concessions in the calculation of gross floor area (“GFA”) which directly contribute to building bulk and height.

3. In response, the BD has conducted opinion surveys and focus group meetings to gauge public views on the existing GFA concession policy to encourage the provision of green and amenity features. A total of two rounds of public opinion survey on green features and recreational facilities in residential buildings were conducted in August 2006 and June 2007. Through telephone interviews, over 1,000 persons were successfully interviewed in each opinion survey. The results revealed general public support of the policy to promote green features (e.g. balconies, sky gardens, etc.) and its continuation. Nevertheless, people are at the same time concerned about the impact of building bulk and height on the neighbourhood and quality of living.

4. The findings of the surveys and focus group meetings are summarized as follows:-

- (a) The benefits of various green and amenity features are generally recognized and the policy of granting GFA concessions as incentives to promote the provision of these features is generally supported by the respondents.
- (b) Most respondents considered that the current criteria for exemption of various green and amenity features are in general pitched at appropriate level. There are feedbacks that the criteria for GFA exemption should preferably be based on performance indicators such as the amount of energy saved.
- (c) While some respondents have concerns over the impact of the height and the bulk of a building on the cityscape of the neighbourhood, most of the respondents have highly rated the need for imposing a cap on various GFA exemptions.

PROPOSALS TO FOSTER A QUALITY AND SUSTAINABLE BUILT ENVIRONMENT

5. The Development Bureau and its departments, notably Buildings Department (“BD”), has been reviewing existing policies and practices with a view to further promoting a quality and sustainable built environment. We have identified a number of major areas that have an impact on the sustainability of the built environment in Hong Kong, as outlined in paragraphs 6 to 10 below.

Enhancement of Sustainable Building Design

6. Following up on the First Sustainable Development Strategy for Hong Kong in response to the “Report on the Engagement Process for a First Sustainable Development Strategy” issued by the SDC in 2005, BD has commissioned a consultancy study to advise on sustainable building design features that would enhance the urban living space environment. The consultant has recommended certain guidelines on sustainable building design for enhancing air ventilation, pedestrian environment and greenery as well as mitigating urban heat island effect. Specifically, the guidelines recommend the following –

- (a) provision of separation between buildings in certain large developments;
- (b) provision of building setback at street level in certain developments abutting narrow streets; and
- (c) enhancement of greening in building developments.

A

Details of the proposed guidelines are at Annex A.

Provision of Essential, Green and Amenity Features in Buildings and Gross Floor Area (“GFA”) Concessions

7. It has been an established Government policy to facilitate and encourage the provision of essential, green and amenity features in building developments, and this is done through the Director of Buildings, acting as the Building Authority, exercising his discretion provided for in the Buildings Ordinance (Cap. 123) (“BO”) to disregard these features in the GFA calculation, to exempt these features from GFA, or to grant

“bonus GFA” for these features if certain criteria are met (collectively referred to as “GFA concessions”). Examples of features covered by GFA concessions include ancillary car parks, plant rooms, balconies, sky gardens, podium gardens, areas dedicated for public passage and ancillary recreational facilities such as club houses. The details of the various existing GFA concessions are at Annex B.

8. Following the report of the Independent Committee of Inquiry on the Grand Promenade incident published in April 2006, the Government has critically reviewed the policies on GFA concessions and other measures to control building bulk, height and density. The Independent Committee opined that while the Government’s policies for encouraging green and innovative buildings and more amenities, facilities and public space were praiseworthy, they undermined the control over the height, bulk and density of buildings by the granting of GFA concessions.

9. The benefits brought about by the provision of essential facilities as well as green and amenity features in buildings on the one hand, versus the impact of building bulk and height on the neighbourhood on the other, is a matter that requires fine balancing and a clear community consensus.

Energy Consumption Standards in Buildings

10. Another important area which has a direct impact on the sustainability of the built environment is the standard for consumption of energy in buildings. The Electrical and Mechanical Services Department issued voluntary Building Energy Codes in 1998. With public support during a three-month consultation concluded in March 2008, new legislation is being prepared to make the Codes mandatory. New commercial buildings, communal areas of residential and industrial buildings and Government buildings would be included in the proposed mandatory scheme. Existing buildings would be required to improve energy efficiency whenever there are major retrofitting works. Energy audits would need to be carried out once every ten years for commercial buildings. It is also proposed to implement a voluntary recognition mechanism to buildings that can achieve better energy efficiency than the statutory standard.

POLICY OPTIONS TO IMPROVE BUILT ENVIRONMENT

Control on GFA Concessions

11. We will collaborate with the SDC to initiate a public engagement exercise on whether the provision of GFA concessions should be tightened and if further measures should be imposed to control building height and bulk. We will endeavour to arrive at a direction on the degree and magnitude of control to be imposed, and also demonstrate the effect of the chosen package of policy options.

12. In view of the recommendations of the Independent Committee of Inquiry after the Grand Promenade incident, an inter-departmental working group within the Government has critically examined the current practice of providing GFA concessions in proposals for building developments and explored the need to introduce a cap on the total GFA concessions. The working group has studied in detail a total of 77 domestic/composite and 20 non-domestic building projects with GFA concessions granted. The cumulative effect of the various GFA concessions on the bulk of these buildings with example is illustrated at Annex C.

C

13. On the basis of the findings of the working group, we have come up with the following broad policy options –

- (a) *Doing away with GFA concessions for mandatory features:* The provision of certain features currently enjoying GFA concessions is required by law or administrative guidelines and with their minimum dimensions stipulated. Examples include refuse storage and material recovery room on each floor of a building, fire refuge area as well as telecommunication and broadcasting equipment room. These features are basic infrastructures of modern buildings and are essential for the proper functioning and safe operation of the buildings. As this kind of features is mandatory and developers have the obligation to provide the same up to at least the minimum requirements, the need for granting GFA concessions to encourage their provision may not be necessary. In other words, these mandatory features will become GFA accountable under this option.
- (b) *Review of car parking provision:* The provision of car parks is required under the Hong Kong Planning Standards and

Guidelines (“HKPSG”) or individual lease conditions. The requirements include the provision of car parks per se as well as loading and unloading areas. At present, pursuant to regulation 23(3)(b) of the Building (Planning) Regulations (Cap. 123 sub. leg. F) (“B(P)R”), floor area for the provision of car parks in accordance with the HKPSG requirements may not be counted for GFA. Car parks are one of the major contributors to building bulk and height. In some cases, the size of the site, the design layout of the project and the use of conventional access ramps result in a disproportionately large car park, which pose a significantly negative impact to building bulk and height. In a sample survey conducted by the BD, in some extreme cases, the GFA concessions granted for car parks could be up to some 50 - 110% of the GFA of the building proper. We must take action to address the problem of GFA generated by car parks if we are to effectively control building height and bulk. Moreover, from the perspective of air quality management, reducing car parking provision could help drive down vehicle ownership and usage, and hence improve road side air quality.

The car parking provision rates for residential developments stipulated in the HKPSG was last revised in 2003. An adjustment factor has been introduced to lower the car parking provision rate per flat for residential developments within the catchment area of a railway station; and a sliding scale for car parking rates has also been provided according to the residential unit sizes. The Transport Department is engaging a consultancy study, with a view to further updating the requirements for provision of car parks for private residential developments stipulated in the HKPSG. The study is expected to conclude in mid-2009. Depending on the results of the review of the related standards in the HKPSG, we will contemplate the imposition of control measures on the provision of car parks in private residential buildings in consultation with the public.

- (c) *Adjusting incentive for dedicating areas for public passage or road widening:* for the dedication or surrender of areas on ground floor for public passage or road widening, it is

provided in the B(P)R that “bonus GFA” equal to five times¹ of the dedicated/surrendered area is to be granted as an incentive for the dedication/surrender. As a measure to check the increase in building bulk and height, we will seek the public’s view on whether they support the provision of public passageways running through private development (e.g. the HSBC Headquarters in Central) through such incentives and whether the existing ratio of the incentive, i.e. five times of the dedicated/surrendered area, should be adjusted.

- (d) *Reviewing GFA concessions for other green/ amenity features:* The direct beneficiaries and users of most of the green and amenity features are the building owners and occupiers, as most of the facilities, such as balconies, sky gardens and club houses, are located either within the individual flat units or private areas of the buildings that are for the exclusive use of the occupants. Supporters of such a concession policy, in particular developers and building professionals, consider that the GFA concession on green and amenity features allows for flexibility and more innovative building design. Nevertheless, other members of the public are mindful of the adverse impact of the building bulk and height brought about by the green and amenity features on the neighbourhood in terms of air ventilation, lighting and view. The enjoyment and convenience of the building occupants vis-à-vis the impact of building bulk and height on the neighbourhood are the factors that have to be carefully examined and balanced.

We anticipate that the public will raise particular concerns over GFA concession for those green and amenity features which do not benefit the environment or public directly but rather improve the quality of private living space only. Examples include balconies, club houses, mail delivery rooms with mailboxes, voids over prestige entrance of main common lobbies, larger lift shaft areas, and facilities for watchman and building management staff. The presence of carparks resulting in large podiums blocking air flow may also be regarded as not environmentally friendly, especially in building projects very well served by public transport.

¹ Bonus GFA of two times of the dedicated/surrendered area is granted for the dedication/surrender on other floors.

- (e) *Capping GFA concessions*: under this policy option, an overall cap and/or caps on individual concession items can be considered, but an overall cap would allow for more flexibility in building design as a developer can decide which features and facilities should be provided and submitted for GFA concession. A cap can also control the cumulative impact on building bulk and height arising from different GFA concessions granted.

Consideration can be given to applying the cap only to sites of higher development density, say those with a plot ratio of five or above; and there could be separate caps for domestic/composite developments and non-domestic developments, which enjoy different extents of GFA concessions. The quantum of caps will also be a subject of public consultation. The inter-departmental working group has recommended that the overall cap for GFA concessions (excluding bonus GFA and car parks), should be selected within the range of 25%-35% for domestic/composite buildings and 20%-30% for non-domestic buildings. Illustrations demonstrating the effects of the various quanta of caps will be made available to facilitate the public's consideration.

In explaining the above policy options, we will also point out the fact that Hong Kong is a place with scarce land resources available for development (some 46% of Hong Kong's land are country parks while built-up areas account for only 24% of land). This has resulted in vertical densities (high rises) and relatively inferior work and living space standards for our people when compared with other developed cities around the World. Further indiscriminate resistance against height or density for building development may make that worse in the longer run.

Legal Status of GFA Concessions

14. In the investigation report of the Independent Committee of Inquiry, it was recommended that the Administration should "review the legislation and amend regulation 23(3)(b) of the B(P)R to include the green, amenity and similar features so that they can be excluded under the regulation. This would also have the effect of avoiding the use of section 42 of the BO in a routine way. The legislation could then be strictly applied".

15. Currently, for certain GFA concessions, the Building Authority utilises what is commonly known as the “modification” power under section 42 of the BO to approve the building projects. The section stipulates that where in the opinion of the Building Authority special circumstances render it desirable he may, on receipt of an application therefor and upon payment of the prescribed fee, permit by notice in writing modifications of the provisions of the Ordinance. This is a general power not specifically designed for GFA concessions. The Building Authority uses such power to grant GFA concessions for green and amenity features (e.g. balconies and sky gardens). However, for other items such as car parks or plant rooms, the Authority has been explicitly empowered under regulation 23(3)(b) of the B(P)R to exercise discretion to disregard their areas from GFA calculation. Similarly, for the granting of “bonus GFA”, it is governed by regulation 22 of the same Regulations.

16. The inclusion of the modus operandi of granting GFA concessions under the statute will enable thorough discussion and debate in the legislature before enactment of the law and provide the Buildings Authority a more formal basis and guidance in exercising his discretion in the future. Nevertheless, it will decrease flexibility and lengthen the process of future adjustments of the GFA concession policies. We shall work with the SDC to seek public views on the proposal. Consideration may also be given to amending the law to provide for the caps on GFA concessions (paragraph 13(e) above).

Guidelines on Sustainable Building Design

17. We will also work with the SDC to identify the best way to present policy options on how to implement the three guidelines on building separation/permeability, building setback as well as greening of buildings (see paragraph 6 and Annex A) that would promote sustainability of the built environment and improve the quality of our urban living space. While we will encourage and welcome the construction of new buildings in accordance with such guidelines on a voluntary basis, there will be no guarantee on the adoption of the guidelines if no other requirements or incentives are put in place at all. One option is to require the implementation of the guidelines as a condition for granting GFA concessions in future. The design and scope of such a requirement could be discussed and agreed at the public engagement process. We may require the implementation of only some of the above measures as a prerequisite for granting GFA concessions for certain items (e.g. enhancement of greening in building development in

return for GFA concessions for sky gardens) or, as a more stringent approach, implementation of all the three measures in return for the granting of any GFA concessions. Recognition may be given to buildings adopting sustainable design practices by providing them with good ratings and distinguished labels in the future building environmental performance assessment and accreditation schemes. Depending on the popularity of the measures and public feedback, in the longer run, consideration may be given to making some or all of the three sustainable building design guidelines mandatory.

Building Energy Consumption

18. Through the consultation on the proposal of mandatory implementation of Building Energy Codes completed in March 2008, public views have been sought on the proposal to enhance building energy efficiency through improving the energy efficiency of major electrical installations in buildings. We plan to submit the relevant legislative proposal to LegCo in 2009, before which we will also consult the relevant LegCo Panel and advisory bodies on the legislative proposals, the timing of which will likely overlap with that of the public engagement exercise. Against this background, for the public engagement exercise, we propose that the focus of consultation should be on other perspectives of reducing building energy consumption, which are more related to the building elements covered in the policy options. For instance, we can explore how to encourage more energy efficient building design (e.g. through increased use of sunlight, reduction of air-conditioning demand by roof garden etc.). The review on concessions for green / amenity features (as detailed in paragraph 13(d) above) may also consider covering concessions for energy efficiency / renewable energy features.

PUBLIC ENGAGEMENT STRATEGY

19. The built environment is shared by all members of the public and any policy changes will directly affect their livelihood. The findings of the surveys and focus group meetings (see paragraphs 3 and 4 above) have indicated that members of the public possess diverse views, as they may have multiple capacities as owners, occupants, persons affected by building bulk and height, etc. Instead of implementing the aforementioned policy options immediately, the public should be given an opportunity to carefully examine the pros and cons of all such options. Engagement of the community in a rational discussion is thus very crucial in the process of mapping out a finely balanced set of measures to take the

matter forward. We will collaborate with the SDC to conduct such a public engagement process to identify the preferred options to address public concerns over the subjects. We will engage the public to tackle the following major questions in the process –

- (a) how can we resolve the apparent contradiction between extra GFA granted as incentives for provision of essential, green and amenity features in buildings and public concerns about building height and bulk giving rise to environmental and visual problems?
- (b) should enhanced standards for green, sustainable and energy efficient buildings be made mandatory requirements? If yes, how could these be applied to new and existing buildings? If not, what measures or incentives should be adopted to promote the adoption of such standards?
- (c) while greater sustainability in the built environment may mean higher capital cost but will bring benefits to the community at large, how can wider appreciation and support for such measures be promoted in the building industry and among the general public?

20. The aim of the public engagement process is to generate thorough and in-depth discussion amongst various sectors in the community before finalisation and promulgation of the new policies. We will carefully craft the consultation documents to ensure that the complex concepts of the subjects are presented in a manner easily understood and consumed by members of the public and that useful comments on the proposals will be solicited from different stakeholders and sectors. We will, in collaboration with the consultant to be engaged by the SDC, prepare illustrations to demonstrate the benefits of having the green and amenity features on the one hand, and the resultant increase in building height and bulk they caused, imposing adverse impacts on the built environment on the other. The illustrations will be supported by appropriate photographs, drawings and photomontages. The effects of the different policy options on controlling building height and bulk will also be demonstrated to facilitate the public's consideration.

21. It is anticipated that views from different sectors will be diverse. The public may come up with further options and proposals on top of our policy options during the engagement process. We will adopt an open

mind and carefully consider the alternative proposals the public may suggest.

ON-GOING REVIEWS

22. Apart from the longer term measures which will be put to the public, the BD has been reviewing and adjusting its policies on GFA concessions on a regular basis. The BD is planning to introduce certain updates on its practices prior to the completion of the public engagement process. These adjustments will also help address the problem of building bulk and height –

- (a) To impose a height limit of 6m for sky gardens;
- (b) To require the combination of sky gardens with refuge floors in a building if applicable;
- (c) To impose a height limit of 6m for podium gardens;
- (d) To reduce the maximum thickness of non-structural prefabricated external walls eligible for GFA concessions from 300mm to 150mm; and
- (e) To count the area of plant rooms for recreational facilities in the maximum for exemption of recreational facilities from GFA calculation.

23. The BD will seek the views of the building professionals and industry through the established consultation mechanism. It is expected that the industry will generally accept the above proposals.

TIMING

24. We aim to launch the public engagement process within the first quarter of 2009. It will be a three-month process. All stakeholders will be invited to join the discussion and express their views via different avenues during the public engagement process. Pamphlets, questionnaires and a dedicated website will be produced to facilitate the

public to express their opinions. Various engagement events, including focus group discussions, briefings and forums will be held with different groups of stakeholders to collect their views. At the end of the engagement period, a strategy summit will be held for reviewing and consolidating the public views gathered during the engagement process.

**Development Bureau
December 2008**

Proposed Sustainable Building Design Guidelines**Sustainable Building Design Features**

- The proposed building design features that support sustainable urban living space and their application criteria are briefly summarized below –

Sustainable Building Design Features	Application Criteria	Objectives
I) Building Separation		
To require buildings in large development sites to be separated by intervening spaces	<p>Site area not less than two hectares or buildings with a continuous façade width greater than 60 metres</p> <p>The area of building separation measured in vertical plane should be equivalent to 20% to 33.3% of the sum of the façade area and the separation area measured in vertical plane, depending on the building design</p>	To enhance air ventilation and improve pedestrian environment and mitigate heat island effect
II) Building Setback		
To require building setback at pedestrian level for developments abutting narrow streets	<p>For sites abutting streets less than 15 metres wide</p> <p>The building measured from ground level to a height of 15 metres should be set back from the street so as to provide a pedestrian zone with a width of not less than 7.5 metres measured from the centre line of the abutting street</p>	To enhance air ventilation and improve pedestrian environment and mitigate heat island effect
III) Site Coverage of Greenery		
To require provision of greenery according to site areas	<p>For sites larger than 1,000 square metres</p> <p>Fixed planting areas equivalent to 20% to 30% of the site areas should be provided on ground floor, podium, roof, etc.</p>	To improve quality of living space and environment and mitigate heat island effect

- When the exempted GFA exceeds a certain percentage of the permissible GFA, an air ventilation assessment (“AVA”) study may also be required to be conducted to ensure that the ventilation of the surrounding areas will not be adversely affected.
- Where site constraints make the provision of the required sustainable building design features not feasible, compensatory measures may be considered according to the circumstances of individual cases. For example, where a property development atop an existing railway station is unable to provide the required separation between buildings (i.e. item I above), the developer may need to conduct an AVA study to substantiate that the air ventilation in the vicinity will not be jeopardized by the proposed development.

Existing Gross Floor Area (GFA) Concessions

A. Disregarded GFA under Building (Planning) Regulations (Cap. 123 sub. leg. F) (“B(P)R”) 23(3)(b)¹ and 23A(3)²

Item	Features	Whether provision of such features is mandatory	Mandatory requirements on spatial design
1	Electrical & mechanical rooms for water tanks, electrical switch rooms, meter rooms, transformer rooms, generator rooms, pump rooms, cable riser duct rooms, CO ₂ rooms, hose reel closets, sewage treatment plant rooms and ducts for central ventilation or smoke extraction system	Yes	<p>The electrical installations shall comply with the spatial requirements under the supply rules of the power companies</p> <p>The fire service installations as required under Code of Practice (“CoP”) for Minimum Fire Service Installations and Equipment and CoP for Inspection, Testing and Maintenance of Installations and Equipment</p> <p>No mandatory requirements on spatial design on the other features.</p>
2	Lift machine rooms for the fireman’s lifts and disabled’s lifts	Yes	The facilities shall comply with regulation 9A of Building (Construction) Regulation (Cap. 123 sub. leg. B) (“B(C)R”) and the spatial requirements under CoP for Building Works for Lifts and Escalators

¹ B(P)R 23(3)(b): In determining the gross floor area for the purposes of regulations 20, 21 and 22, the Building Authority may disregard any floor space that he is satisfied is constructed or intended to be used solely for parking motor vehicles, loading or unloading of motor vehicles, or for refuse storage chambers, refuse storage and material recovery chambers, material recovery chambers, refuse storage and material recovery rooms, refuse chutes, refuse hopper rooms and other types of facilities provided to facilitate the separation of refuse to the satisfaction of the Building Authority, or for access facilities for telecommunications and broadcasting services, or occupied solely by machinery or equipment for any lift, air-conditioning or heating system or any similar service.

² B(P)R 23A(3): In determining the gross floor area of a hotel building or the hotel part of a building for the purposes of regulations 20, 21 and 22, the Building Authority may disregard any floor space in that hotel building or the hotel part of that building that he is satisfied is constructed or intended solely for use as-

- (a) a place for picking up and setting down persons departing from or arriving at the hotel by vehicle; or
- (b) any of the following-
 - (i) a laundry, a carpentry workshop, a mechanical or electrical workshop;
 - (ii) an area for storing dry goods, food, beverages, linen or furniture;
 - (iii) facilities for the welfare of staff including staff canteen, changing room and rest room for staff; or
 - (iv) other supporting facilities as may be approved by the Building Authority.

Item	Features	Whether provision of such features is mandatory	Mandatory requirements on spatial design
3	Lift machine rooms for lifts other than fireman's lifts and disabled's lifts	No	The facilities, if provided for, shall comply with B(C)R 9A and the spatial requirements under CoP for Building Works for Lifts and Escalators
4	Air conditioning ("A/C") plant rooms including boiler rooms	No (except for the central A/C plant for hotels)	No mandatory requirements on spatial design
5	Carparks and loading and unloading areas	The minimum provisions are stipulated in the Hong Kong Planning Standards and Guidelines ("HKPSG")	Standard dimensions stipulated in HKPSG
6	Refuse storage and material recovery chambers / rooms	Yes	Minimum spatial requirements stipulated in the Buildings (Refuse Storage and Material Recovery Chambers and Refuse Chutes) Regulations (Cap. 123 sub. leg. H) and relevant practice notes.
7	Horizontal area of staircases and lift shafts through floors with disregarded GFA	No	No minimum requirements on spatial design
8	Telecommunication and broadcasting equipment ("TBE") rooms	Yes	The facilities shall comply with B(P)R 28A and the spatial requirements stipulated in the relevant practice notes.
9	Back-of-house ("BOH") facilities of hotels	No (not a mandatory requirement unless hotel concession under B(P)R 23A is claimed by the applicant. BOH facilities may also be required to be provided under the lease conditions for hotel sites.)	No minimum requirements on spatial design

B. Exempted GFA under section 42³ of the Buildings Ordinance (Cap. 123) (“BO”)

Item	Features	Whether provision of such features is mandatory	Mandatory requirements on spatial design
1	<p>Green features under Joint Practice Notes (“JPN”) 1 and 2, including</p> <ul style="list-style-type: none"> • balconies* • wider common corridors and lift lobbies* • sunshades* • sky gardens • podium gardens • acoustic fins* • wing walls, wind catchers and funnels* • utility platforms • mail delivery room with mailboxes* • non-structural prefabricated external walls • noise barriers <p>*: The cumulative GFA exemption for such green features should not exceed 8% of the total permitted GFA of the development.</p>	No	N/A
2	Pipe ducts	No	N/A
3	Fire refuge area	Yes	Spatial requirements are stipulated under the CoP for the Provision of Means of Escape in Case of Fire 1996.
4	<p>Recreational facilities (e.g. clubhouses, squash courts, gymnasiums, function rooms, etc.) (Note: The exempted area for recreational facilities per development is subject to a cap of 5% of the domestic GFA of the development)</p>	No	N/A

³ BO section 42(1): Where in the opinion of the Building Authority special circumstances render it desirable he may, on receipt of an application therefor and upon payment of the prescribed fee, permit by notice in writing modifications of the provisions of this Ordinance.

Item	Features	Whether provision of such features is mandatory	Mandatory requirements on spatial design
5	Covered gardens/play areas	No	N/A
6	Horizontal screens/covered walkways	No	N/A
7	Swimming pool filtration plant room	Yes (mandatory if a swimming pool is provided for)	No minimum requirements on spatial design.
8	Counters, kiosks, office stores, guard rooms and lavatories for watchmen and management staff	No	N/A
9	Mail rooms for large commercial and industrial buildings	No	N/A
10	Larger lift shaft areas	No	N/A
11	Miniature logistic service room in a multi-storey residential building	No	N/A
12	Voids over prestige entrances of main common lobbies	No	N/A
13	Voids in front of cinema, theatre balconies, banking halls, shopping arcades etc.	No	N/A
14	Voids in duplex flats and single family houses	No	N/A
15	Areas within or through a building at ground level or other floor levels dedicated for public passage	Not a compulsory requirement unless required by planning condition or under the lease	Spatial designs depends on the extent of public passage required or accepted by the relevant Government departments

C. Bonus GFA under B(P)R 22⁴

Item	Features	Whether provision of such features is mandatory	Mandatory requirements on spatial design
1	Dedication of set-back areas at ground level for public passage (street widening)	Not a compulsory requirement unless required by planning condition or under the lease	Spatial design depends on the extent of road widening required and anticipated pedestrian flow
2	Surrender of land at ground level for road widening	Not a compulsory requirement unless required by planning condition or under the lease	Spatial design depends on the extent of land required for road widening

⁴ B(P)R 22:

- (1) Where, between ground level and a height of not less than 5.5 m or, where the Building Authority is satisfied that there will be no obstruction to vehicular traffic using the street, 3.3 m above ground level, a building on a class A, B or C site is set back from a boundary of the lot on which it is erected, being a boundary that abuts on a street, and, with the consent of the Government, the part of the lot that is thereby not built upon is dedicated to the public for the purposes of passage-
 - (a) the site coverage for the building or for any one part of the building may exceed the permitted percentage site coverage, so, however, that the site coverage therefor does not exceed that percentage of the area of the site equal to the sum of the permitted percentage site coverage for the building or for that part of the building, as the case may be, and the figure obtained by dividing the product of 1 500 and the area of the lot so dedicated to the public by the product of the area of the site and the height of the building; and
 - (b) the plot ratio for the building or, if the building is a composite building, for the domestic part of the building may exceed the permitted plot ratio, so, however, that the plot ratio therefor is not greater than the permitted plot ratio for the building or for that part of the building, as the case may be, by more than 20 per centum or does not exceed the sum of the permitted plot ratio for the building or for that part of the building, as the case may be, and the figure obtained by dividing the product of 5 and the area of the lot so dedicated to the public by the area of the site on which the building is erected, whichever is the less.
- (2) Where part of a lot, being a part that abuts on a street, is acquired by the Government, either by agreement or by resumption under the Lands Resumption Ordinance (Cap. 124), for the purpose of street widening, the Building Authority may permit-
 - (a) the site coverage for a building erected on that lot, being a class A, B or C site, or for any one part of the building to exceed the permitted percentage site coverage, so, however, that the site coverage therefor does not exceed that percentage of the area of the site equal to the sum of the permitted percentage site coverage for the building or for that part of the building, as the case may be, and the figure obtained by dividing the product of 1500 and the area of the part of the lot so acquired by the Government by the product of the area of the site and the height of the building; and
 - (b) the permitted plot ratio for the building or, if the building is a composite building, for the domestic part of the building to exceed the permitted plot ratio, so, however, that the plot ratio therefor is not greater than the permitted plot ratio for the building or for that part of the building, as the case may be, and the figure obtained by dividing the product of 5 and the area of the part of the lot so acquired by the Government by the area of the site on which the building is erected, whichever is the less.

Effect of Various GFA Concessions on Bulk of Buildings

- The ranges of GFA concessions granted as a percentage over the total GFA of the buildings proper of 97 samples in a study conducted by the Inter-departmental Working Group are summarized as follows:-

GFA concessions	Domestic/Composite Buildings						Non-domestic	
	Residential Zone 1 [#]		Residential Zone 2 [#]		Residential Zone 3 [#]		Range	Average
	Range	Average	Range	Average	Range	Average		
Bonus*	0-10%	1%	Nil		Nil		1%-17%	4%
Disregarded (Carparks)	0%-37%	13%	4%-111%	42%	6%-64%	32%	0%-33%	12%
Other Disregarded (e.g. plant rooms, etc other than carparks)	3%-17%	9%	4%-17%	10%	3%-33%	11%	6%-29%	15%
Exempted (e.g. green & amenity features)	3%-29%	17%	9%-24%	15%	2%-19%	14%	0.3%-15%	6%
	Total	40%	Total	67%	Total	57%	Total	37%

Note: A total of 77 domestic / composite and 20 non-domestic buildings projects with GFA concessions has been studied.

* Bonus GFA was granted in 25 cases of the sample cases.

[#] Residential Zone 1 covers the highest density of residential developments and applies to districts well served by high capacity public transport systems such as rail station or other major transport interchange.

Residential Zone 2 covers developments at a medium density and applies in locations less well served by high capacity public transport systems.

Residential Zone 3 covers the lowest density of residential development and applies to districts with very limited public transport capacity.

Analysis of the Cumulative Effect of Various GFA Concessions of an Average Building out of the above Samples

Site Area (m²)	Number of storey	Permitted domestic GFA (m²)	Percentage of GFA concessions above permitted domestic GFA	Types of GFA concessions	Percentage of permitted domestic GFA		Effect of the GFA concessions on height and bulk of the building	
2 331	49 (44 storey residential tower above 5 storey podium of carparks and recreational facilities)	21 371	40%	Bonus	2%		Equivalent to 1.5 storeys	
				Disregarded GFA (Carparks)	16%		Equivalent to 3.5 storeys	
				Disregarded GFA (Plant rooms, etc other than carparks)	4%		Equivalent to 0.5 storey	
				Exempted GFA (e.g. green and amenity features)	18%	Balcony, utility platform, pipe duct, covered walkway, lift shaft concession	Equivalent to 10% of the site coverage of the tower	
						Refuge floor	Equivalent to 1 storey	
						Recreational facilities	Equivalent to 1 storey	
				Overall cumulative effects				