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LEGISLATIVE COUNCIL BRIEF

MEASURES TO FOSTER A QUALITY AND SUSTAINABLE BUILT ENVIRONMENT

INTRODUCTION

At the meeting of the Executive Council on 5 October 2010, the Council ADVISED and the Chief Executive ORDERED that a package of measures as outlined in paragraphs 9 to 19 below, covering the following major elements, should be implemented to foster a quality and sustainable built environment –

(a) sustainable building design requirements;

(b) gross floor area (GFA) concessions; and

(c) energy efficiency of buildings.

JUSTIFICATIONS

2. To respond to the global agenda on carbon emission reductions and address local concerns about the negative impact of excessive building bulk and height on the environment, we need to put in place new policy measures to promote a quality and sustainable built environment.

Community Concern over Sustainable Built Environment

3. 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, green groups, the Legislative Council (LegCo) as well as the general public. In line with the Chief Executive's pledge for progressive development in this term of the Government, we have introduced a number of measures to address these concerns, such as the requirement for conducting air ventilation assessment and visual impact assessment during the development approval process; progressive review of

Outline Zoning Plans to impose building height restrictions and other development parameters; incorporation of suitable development parameters in Government land sale conditions and modified leases for specific sites, etc. More specifically, we have committed to follow up on concerns, as revealed in the incident of the Sai Wan Ho Development on Inland Lot No. 8955 (aka "Grand Promenade")[1], that private developments are granted various concessions in the calculation of GFA and these directly contribute to building bulk and height. At the same time, global and local discussions on climate change and carbon emission reductions have aroused public awareness of the importance of green and sustainable buildings. The Hong Kong Green Building Council (HKGBC) has been established since November 2009 as Hong Kong's leading body to drive the promotion of green buildings.

Council for Sustainable Development's Public Engagement on Sustainable Built Environment

4. On 19 December 2008, we briefed the LegCo Panel on Development (see LC paper no CB(1)396/08-09(05)) on the Administration's plan to collaborate with the Council for Sustainable Development (SDC) to launch a public engagement process[2] to gauge the public's views on measures to foster a quality and sustainable built environment. As a follow up on its earlier public engagement process on urban living space, the SDC launched a public engagement process entitled "Building Design to Foster a Quality and Sustainable Built Environment" in collaboration with the Development Bureau (DEVB) and Environment Bureau (ENB) from June to October 2009. The exercise was to engage various sectors of the community in in-depth discussions with a view to identifying the preferred options for fostering a quality and sustainable built environment. The SDC submitted its report to the Government on 25 June 2010.

5. The public engagement exercise has stimulated public interest over the issue of sustainable building design and quality built environment, and collected many useful comments. The engagement presented three core subjects for public consideration, as follows –

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1 In the report of the Independent Committee of Inquiry into the Sai Wan Ho Development, the Committee opined that the Government's policies for encouraging green and innovative buildings, and more amenities, facilities and public space, are entirely praiseworthy. However, it was concerned that the more exemptions are given, the higher, the more bulky and the more dense the buildings will become and that the provisions of the Buildings Ordinance and the regulations which are intended to control the height, bulk and density of buildings have been watered down by the way in which the legislation is applied.

2 The SDC's public engagement process comprised five stages: (1) identification of priority areas; (2) preparation of an Invitation for Response document to invite public responses; (3) collection of views by directly engaging the wider community; (4) independent analysis of community's views and preparation of the SDC's report; and (5) Government's response and action.

(a) sustainable building design guidelines on building separation, building setback and site coverage of greenery;

(b) GFA concessions for the provision of essential, green and amenity features in buildings; and

(c) energy efficiency of buildings.

The public engagement report contains a total of 51 recommendations of the SDC in respect of the above three subjects and related issues regarding the current building regulatory framework, town planning, and information and transparency of the property market. The DEVB and SDC briefed the LegCo Panel on Development on 27 July 2010 on the details of the report (see LC paper no. CB(1)2601/09-10(01)). The report is at **Annex A**.

A Mandate for Change

6. The public engagement has revealed a clear call from the community for change and that maintaining the status quo is not an option. There are strong public aspirations for a quality and sustainable built environment. The exercise has pointed to a need for putting in place new measures to promote building setback as a means to provide better pedestrian environment; building separation to avoid air ventilation blockage and wall-effect of buildings; and more site coverage of greenery in buildings to mitigate against urban heat island effect and to improve the environment in general. The SDC has also tendered advice on changes to the current practices of granting GFA concessions in buildings and recommended measures to promote energy efficiency in buildings. Although not related directly to building designs, the SDC has advocated a transparent property market in which potential buyers will be provided with all relevant information for making informed decisions.

7. Given the complexity of and diverse opinions on the subject of sustainable built environment (particularly GFA concessions), the Government has adopted the following guiding principles in assessing the practicality of any recommendations from the SDC on this aspect. These guiding principles are –

(a) to achieve the objectives in terms of energy efficiency, building maintenance, environmental conservation and provision of amenities;

(b) to strike a balance between the interest of individual building occupants vis-à-vis that of the neighbourhood and the wider community;

(c) to review and adjust regulatory controls and practices to allow freedom in design yet maintaining checks and balances; and

(d) to nurture flexibility, creativity and innovation in building development to foster a diversified built environment.

8. We have formulated the Administration's response to the SDC's recommendations (at **Annex B**) taking into account the above principles. Where there are calls for immediate action, our response has outlined implementation details. In general, for changes that do not deviate from the provisions of the existing Buildings Ordinance (Cap. 123) (BO) and relevant regulations and building design and construction control, it has been effective to impose new requirements through administrative means, such as practice notes for building professionals issued by the Buildings Department (BD)[3]. The advantage of this approach is that the new measures can be implemented quickly and, where necessary, adjusted easily through revision of practice notes. Past experience reveals that, upon issue of new practice notes, the industry will spontaneously follow the new practice. We will adopt the same administrative approach as far as possible in implementing the recommendations of the SDC. The Administration's action plan will continue to evolve as the government departments concerned enhance their guidelines, practices and modus operandi, and complete any relevant legislative exercise or longer-term reviews. The ensuing paragraphs highlight the Administration's response to the major recommendations in the SDC report, particularly those relating to GFA concessions.

(A) Building Design Requirements

Building Separation, Building Setback and Site Coverage of Greenery

9. The SDC has recommended mandatory building separation for large building developments (sites no less than two hectares or with continuous building façade width of no less than 60 metres) and mandatory building setback for buildings abutting narrow streets (streets less than 15-metre wide) to improve air ventilation between buildings and at street level. On greenery, the

3 For example, the current GFA concessions for green and innovative buildings are implemented via two Joint Practice Notes issued to authorized persons by the BD, Lands Department and Planning Department in 2001 and 2002.

SDC has recommended that the Government should impose mandatory requirement to provide greenery for large sites (no less than 1 000 m^2), including greenery at the ground level as a priority, as well as the podium and roof levels. There is widespread support for these design requirements which will bring obvious community benefits. As a matter of fact, we have imposed some of these requirements on a site-specific basis through either the town planning approval process or in Government land sales. We agree with the SDC's recommendations and will implement the above building design features in a more systematic manner through various means. We will include such requirements in the lease conditions of new land sale sites or lease modifications/land exchanges, and also invite the Town Planning Board to impose, where possible, the conditions in the planning approvals. As there may be building development or redevelopment projects that require no planning approval or lease modification, we will, as a further safeguard, make compliance with the above three requirements (i.e. building separation, building setback and site coverage of greenery), where applicable, **prerequisites** for obtaining GFA concessions for green and amenity features. In other words, if the requirements are applicable to the site and a developer wishes to obtain GFA concessions for green and amenity features (including communal podiums/sky gardens) in its development, the developer would have to provide, depending on the applicability of the site, building separation, building setback and/or site coverage of greenery.

10. Regarding the provision of building setbacks, the SDC has recommended that a justifiable compensation scheme be put in place under which land owners would be appropriately compensated for compliance with the mandatory building setback requirement with reference to the location, benefits to the public and/or other relevant factors. We will exempt any covered setback areas at the ground level from GFA calculation. Furthermore, under the existing Building (Planning) Regulations (Cap. 123 sub. leg. F) (B(P)R)[4] , if the setback areas at ground level are dedicated for public passage with the consent of the Government, the owner may be compensated with bonus GFA of up to five times the setback area or 20% of the permissible plot ratio, whichever is the lesser. However, if the provision of setback is a planning or lease condition, or it involves no dedication of private land for public passage purpose, or if the statutory plan or lease conditions do not allow GFA concessions due to special site characteristics such as special need to control building mass, no bonus GFA will be provided to the developer. For greenery, the SDC has recommended that a monitoring mechanism with sanctions be established to

4 The existing regulation 22 of the B(P)R specifies the circumstances where bonus GFA will be granted for a part of the private lot that is not to be built upon and to be dedicated to the public for the purpose of passage. Such arrangement is governed by a Deed of Dedication.

ensure that the greenery is properly maintained throughout the life of the building. We find it impractical to put in place a Government monitoring mechanism of this sort. Instead, we will disseminate the needed information for the benefit of prospective buyers and will encourage owners, residents and the public to monitor the continued provision of greenery in these properties.

(B) Gross Floor Area Concessions

Classification of and Overall Cap on GFA Concessions

11. We have, with reference to the SDC's recommendations, re-examined each and every feature currently attracting GFA concessions and will treat them as follows –

(a) we accept the SDC's recommendation to maintain the status quo for mandatory features. In other words, we will continue to exempt these features from GFA calculation and will not subject them to an overall cap on GFA concessions;

(b) we will promote green features with community benefit such as communal podium gardens and sky gardens which may improve permeability of a development to its neighbourhood by exempting these features from GFA calculation and will not subject them to an overall cap on GFA concessions;

(c) we will reduce GFA concessions for car parks as a separate item outside of an overall cap on GFA concessions given its significant impact on building bulk and height and the relevant transport, planning and environmental policies; and

(d) we will, as recommended by the SDC, impose an overall cap (excluding bonus GFA as well as GFA concessions for mandatory features, communal podium/sky gardens, car parks and voids in certain non-domestic developments) on the total amount of GFA concessions that can be granted for a development project.

12. The main points of the relevant proposals are highlighted as follows –

Mandatory Features

(a) Examples of mandatory features in buildings include refuse storage and material recovery rooms, fire refuge floors and floor space

occupied solely by essential building services, machinery or equipment. These features are considered essential in modern buildings and, for some of the features, such as refuse storage and material recovery rooms, developers are required to provide them up to specified minimum dimensions. Building professionals are rightly concerned that, without GFA concessions, developers may only provide mandatory features to minimum size/configuration or at undesirable locations that will affect the subsequent maintenance of the installations. As such, the SDC has recommended and we agree to maintain the status quo for mandatory features. Nevertheless, the BD will introduce a control measure to require a developer who wishes to provide a sky garden in a building with a fire refuge floor which is a mandatory feature to combine the two features on the same floor to reduce raising the height and bulk of the building unnecessarily.

Green and Amenity Features

(b) The SDC has recommended that the Government reviews and reduces the level of a range of existing GFA concessions for green and amenity features, such as those for residents' clubhouses, balconies, utility platforms, non-structural prefabricated external walls and building management facilities. From a sample study of 97 developments (comprising 77 domestic/composite and 20 non-domestic developments) with GFA concessions granted, we notice that developers tend to include those same green and amenity features (including balconies, utility platforms, residents' clubhouses, wider corridors and lift lobbies, communal sky gardens, and prestigious entrances) which would improve marketing and sale of flats in all kinds of domestic developments regardless of the practical layout and characteristic of the site, and seldom incorporate green features like wind funnels, noise barriers, acoustic fins, etc. into the development. To reduce the total impact of such GFA concessions on the bulk and height of the building and encourage developers/professionals to be more discriminate in their building design, we will –

(i) do away with the GFA concessions for those features which are neither green nor essential such as mail room/mail delivery room with mail boxes, miniature logistic service room, and prestigious entrance for domestic developments;

(ii) reduce the GFA concession for balconies and utility platforms from the current level of 100% to up to 50% of the area of such features, and reduce the maximum thickness of non-structural prefabricated external walls eligible for GFA concessions from 300mm to 150mm;

(iii) continue to provide GFA concessions in respect of wider corridors/lift lobbies only if natural ventilation is provided and for other environmental design features such as acoustic fins and wind funnels subject to quantitative justifications on their environmental performance;

(iv) reduce the GFA concessions for recreational facilities including residents' clubhouses taking account of the size of the domestic GFA in a sliding scale. For example, for sites with total domestic GFA exceeding 125 000 m^2, only 2.5% of the total domestic GFA (as compared to an across-the-board 5% at present) will be exempted for recreational facilities; and

(v) impose an overall cap on the total GFA concessions granted at 10% for domestic developments and 10% for non-domestic developments. In actual implementation, since several of the green and amenity features like clubhouses and balconies are only relevant to domestic developments, although the same 10% cap is operative, commercial buildings will normally have greater room to accommodate all the desirable environmental features if they so wish. In recognition of the communal benefits and planning merits of communal podium/sky gardens, and the operational justifications for voids in certain non-domestic developments, we will not subject these design features to the overall cap.

It should be noted that the provision of facilities or features eligible for GFA concessions would still be subject to technical criteria laid down in any relevant regulations under the BO and/or design guidelines promulgated by the BD.

(c) We have considered whether the proposed overall cap should be applicable to only development sites with relatively higher permissible plot ratio, as it is developments of such density found in densely populated urban areas that are normally of public concerns. We decide that the cap should be applied consistently to all development sites on parity grounds.

Car Parks

(d) Car parks are among the significant contributors to building bulk and height. Generally speaking, space designated for car parks in an approved building plan are disregarded from GFA calculation (i.e. 100% GFA concessions). According to the above-mentioned sample study of the BD, the percentage of GFA disregarded for car parks has been 12% of the total GFA on average for a non-domestic building while the corresponding averages for domestic developments are 13% for high density projects; 42% for medium density projects and 32% for low density projects. They cause particular problems in building height, as the domestic portions of many building developments are stacked up by car parking floors.

(e) At present, the relevant departments will make reference to the Hong Kong Planning Standards and Guidelines (HKPSG)[5] to require the provision of a reasonable number of car parking spaces for an individual site, assessing factors such as the development's location, scale and flat sizes, as well as railway and transport facilities nearby. The Transport Department (TD) is conducting a review of the car parking provision for private residential developments in the HKPSG and is collecting up-to-date information as the basis for revising the standards of car parking provision. Preliminary results of the review indicate that there is room for decreasing the overall demand of car parking spaces. The review is expected to complete by end 2010.

(f) There is widespread community support for the SDC's recommendation that the Government should reduce the level of GFA concessions for car parks in general and promote underground car parks where technically feasible. In response, we will only provide 100% GFA concessions when the two conditions below are satisfied –

(i) the car parks are provided underground; and

5 The HKPSG stipulates ranges of car parking provisions for both residential and non-residential developments. For example, for residential developments, different levels of car parking provision are required for flats of different sizes and in accordance with rail transport availability. Site-specific traffic impact assessment as well as the design and layout of the car park provision have to be provided to the satisfaction of the Transport Department. In case the number of car parks determined by the above assessment is lower than the lower limit of the range in the HKPSG, GFA concession in accordance with the lower number so determined will be granted.

(ii) the car parks are "electric-vehicle (EV) charging-enabling"[6].

For car parks fulfilling (ii) above but are above-ground, only 50% GFA concessions will be granted. Exceptions will be considered for granting 100% GFA concessions where it is proven with sufficient evidence that it is technically infeasible or totally unnecessary (e.g. where the car park poses no adverse environmental or visual impact to its surrounding areas) to construct an underground car park in a specific site. Pending completion of the review of the car parking provision in the HKPSG as described in sub-paragraph 12(e) above, the TD will continue to critically examine the demand for car parking spaces of the development.

Projecting Windows (commonly known as "Bay Windows")

(g) The SDC has recommended that the Government should review the desirability of "bay windows"[7] and the current policy and practice of their exclusion from plot ratio calculations. The review should be in the context of whether these windows would improve the overall environmental performance of buildings. The BD has reviewed the background for accepting these window designs as they have been considered as projections from the external walls and do not fall within the definition of GFA. To rationalise the provision of projecting windows, the BD will shortly commission a consultancy study on design and construction requirements for residential buildings for energy efficiency. The study will help us better understand to what extent bay windows could improve the overall environmental performance of a residential building. Meanwhile, the BD will reduce the allowable extent of projection (i.e. depth of bay windows) from the current 500 mm to 100 mm.

(C) Energy Efficiency of Buildings

13. Lowering energy consumption in buildings is an important part of Hong Kong's carbon emission reduction strategy, as 89% of our electricity is consumed in buildings. The ENB has proposed legislation to mandate implementation of the Building Energy Codes (BECs) in buildings which has been introduced into LegCo, and will actively pursue the enhancement of energy

6 Specifically, parking spaces are required to put in place at the building construction stage the infrastructure and conditions, including electrical wiring and provision of sufficient power supply, which are necessary for future installation of electric vehicle standard charging facilities.

7 "Bay window" is an incorrect term as the projecting window allowed nowadays is not in full height but raised 500 mm from finished floor level.

efficiency standard of the BECs through periodic review. Moreover, the ENB has also introduced various initiatives to encourage energy audits and installation of energy saving devices (e.g. through the Building Energy Efficiency Funding Schemes).

14. To save electricity consumption in air-conditioning for commercial buildings and hotels, the Building (Energy Efficiency) Regulation (Cap. 123 sub. leg. M) (B(EE)R) requires the external walls and roofs of these buildings to be designed and constructed with a suitable overall thermal transfer value (OTTV) which is now stipulated in a Code of Practice for OTTV in Buildings. The BD has reviewed the B(EE)R and the Code of Practice recently and will tighten up the current OTTV standard by 20%. It is estimated that this will result in energy saving of 2.4 to 4.4%. On the other hand, a district cooling system will be set up for the Kai Tak Development. The SDC has recommended and we agree that the Government should actively explore the feasibility of developing similar systems in other sites where appropriate.

15. Since its establishment in November 2009, the HKGBC, an industry-based organisation, has made admirable efforts in driving the green building movement in Hong Kong. It has promulgated an updated version of Hong Kong's unique assessment system for green building certification – the Building Environmental Assessment Method (BEAM) Plus (with four gradings of Platinum, Gold, Silver and Bronze); introduced a green guide for revitalising industrial buildings to match the Government's new policy; trained several hundreds of BEAM Professionals and are aiming to accredit more BEAM Assessors. Since April 2009, the Government has stipulated that all new Government buildings with construction floor area exceeding 10 000 m^2 should aim to attain the second highest rating in a local or overseas assessment system, including BEAM Plus Assessment conferred by the HKGBC. We believe it is timely to give this green building movement a bigger push in the private sector. Therefore, in addition to the three requirements of building separation, building setback and site coverage of greenery, we will require certification by BEAM Plus Assessment conferred by the HKGBC (but without mandating the rating obtained) for all new buildings as well as estimation of energy consumption of the common parts of a domestic development (including clubhouses) and of the entire non-domestic development as additional prerequisites for the developers to seek GFA concessions for communal podium/sky gardens as well as other relevant green and amenity features in their developments.

(D) Flexible Mechanism to Encourage Innovation

16. The SDC has recommended that a mechanism be worked out whereby adjustment of the requirements for building separation, building

setback and site coverage of greenery may be allowed upon scientific evidence (covering factors like site location and configuration, wind direction, air ventilation, urban climatic considerations, etc). Given the site constraints in Hong Kong, we do agree that such a mechanism is needed for the above design guidelines and the design of other features such as car parks, as well as innovative designs and ideas, that may not exactly fit with the requirements stipulated in the relevant practice notes. Under the BD, there is an existing set-up called the "Building Committee" (BC) which is tasked to consider special cases that may deviate from established practice. To facilitate consideration of development proposals incorporating innovative designs or deviations in various technical/professional aspects (e.g. energy efficiency, environmental performance, etc.), the BD will expand the set-up of the BC to include non-Government experts from the relevant fields to provide expert advice on individual projects on a need basis. For example, for a project that cannot meet the building setback requirement but has incorporated compensatory air ventilation measures, experts from the field will be invited to join the BC meetings to consider whether the compensatory measures will achieve the equivalent performance intended in building setback.

(E) Information and Transparency

17. In its report, the SDC has mentioned that considerable views received expressed discontent with the transparency of the property market, especially inaccessibility to information on GFA concessions for different features and indicated that further efforts should be considered to enhance the awareness of the public and prospective flat buyers on the standardised definition of "saleable area". The SDC welcomes the Government's nine proposals for enhancing the sales arrangements and the dissemination of pricing and transaction information of first-hand private residential properties, and applauds the BD's new requirement for a detailed breakdown of all GFA concessions granted in new building developments to be shown on building plans as a good step in the right direction. The BD has also committed to publish the summary of such information on its website upon completion of the development. This new measure will be applicable to developments in respect of which an application for occupation permit is submitted on or after 1 September 2010. The BD will publicise the grading of BEAM Plus Assessment conferred by the HKGBC and estimated energy consumption of the developments concerned as mentioned in paragraph 15 above upon their completion. In summary, the following information for a development will have to be provided to the BD –

(a) breakdown of GFA concessions obtained for all features;

(b) rating of BEAM Plus Assessment conferred by the HKGBC; and

(c) estimated energy consumption.

18. To enhance the transparency of information on area and pricing, the Transport and Housing Bureau (THB) standardised the definition of "saleable area" and the format of the price lists for first-hand uncompleted private residential properties in October 2008. The standardised definition of "saleable area" includes only the areas of the unit as well as balcony and utility platform, if any. Other areas of the unit, such as bay windows, should be separately listed out item by item but should not be included as part of the "saleable area". The standardised price list template provides breakdown of the GFA of a unit in terms of the standardised "saleable area" (with further breakdown into the areas for balcony, utility platform (if any)), bay window, air conditioning plant room, apportioned share of common areas, and other areas of the unit such as roof and flat roof. Also, it provides information on flat price per square foot/metre in "saleable area" of individual flats. The above information enables prospective buyers to know what makes up the GFA and the saleable area of a unit. To further enhance the transparency of property information in the sales brochures of uncompleted first-hand private residential properties, the THB will require inclusion of the information mentioned in paragraph 17 above in the sales brochures of uncompleted first-hand private residential development which the Lands Department (LandsD) has granted pre-sale consent. It will also require developers to provide further breakdown on apportioned share of common area, taking into account the professional input from the relevant professional body. The THB will discuss with Real Estate Developers Association of Hong Kong (REDA) on the arrangements, and continue to work with the Consumer Council, REDA and Estate Agents Authority to enhance public awareness on area information, including the standardised definition of "saleable area".

Further Measures

19. There are recommendations that the SDC has acknowledged that cannot be implemented immediately and could only be pursued in the longer run, such as adopting a more performance-based and site-specific approach in determining the overall GFA concession cap. In response to this, the BD has commissioned a study to look at building design and construction requirements for residential buildings that will promote energy efficiency. This consultancy will focus on the building aspects in parallel with the ongoing work of the Planning Department (PlanD) such as air ventilation assessment system and the establishment of urban climatic maps for Hong Kong. We will also work closely with the HKGBC in its efforts to lead the community to adopt green building practice. To align with the recommendations regarding building

setback, the SDC has recommended that the Government should review the current allowable maximum site coverage of 100% for non-domestic buildings or the non-domestic parts of composite buildings up to a height of 15 metres as allowed under the Building (Planning) Regulations (Cap. 123 sub. leg. F) (B(P)R), with a view to reducing such coverage. The BD has already kick-started the review and aims to come up with a proposal in due course. Legislative amendments may be required to implement this recommendation.

IMPLEMENTATION

20. During the past year when the SDC conducted its public engagement exercise, certain members of the industry expressed their concern that uncertainties over what the future arrangements for GFA concessions would be affecting the normal operation of the market. The Secretary for Development has therefore stated openly in LegCo that any new policy measures would not have retrospective effect in the sense that current arrangements for granting GFA concessions to green, amenity and essential features would continue to apply to general building plans approved by the Building Authority (BA) prior to the implementation of any new policy measures; and that given the time required for the Administration to respond to the SDC's recommendations and consultations thereafter with the industry on draft practice notes, any new policy measures will not be implemented before 31 March 2011.

21. We now aim at completing the consultation with the industry on the revised practice notes in accordance with established practice before end December 2010. We propose that the revised practice notes should come into effect on 1 April 2011 and be applied to building plans submitted to the BD for approval on or after 1 April 2011. In other words, we propose that the existing practice notes will apply to building plans submitted by developers to the BD between now and 31 March 2011. While building plans submitted on or before 31 March 2011 would be considered according to the current policy on GFA concessions, should such plans be subsequently refused by the BA, any further resubmission of building plans to the BD for the same site will be subject to the new policy on GFA concessions.

OTHER OPTIONS

22. The increase in building bulk and height is a matter of serious concern to the public and has negative impact on the quality and sustainability of the built environment. The public engagement has revealed a clear call for

change from the community. To achieve sustainable development, we have no option but to introduce changes to the current policy.

IMPLICATIONS OF THE PROPOSAL

23. The proposal's implications are set out at **Annex C**.

PUBLIC CONSULTATION

24. A public engagement process entitled "Building Design to Foster a Quality and Sustainable Built Environment" was conducted from 20 June to 31 October 2009. With the support of 30 partner organisations, a total of 47 engagement events in various formats were rolled out, five of which were regional engagement sessions held across the territory. Various meetings and discussion forums with advisory bodies, professional bodies, environmental groups, District Councilors and other key stakeholders were held. We also consulted the LegCo Panel on Development thrice on the subject, including the recommendations of the SDC. We will brief LegCo and stakeholders on our implementation plan, and consult the industry on the technical aspects of the practice notes.

PUBLICITY

25. We will issue this Brief on 13 October 2010 and will brief LegCo on our package of measures. We will widely publicise our proposals and solicit public support for our efforts to create a quality and sustainable built environment.

BACKGROUND

26. To facilitate and encourage the provision of essential, green and amenity features in building developments, it has been an established policy of the BD to grant GFA concessions for these features if they meet certain criteria. The GFA of such features, if approved for concession, will not be calculated towards the total GFA. The major purpose of the policy is to enhance the functioning of buildings and improve the livelihood of the occupants. There are three existing types of GFA concessions, namely "disregarded GFA"[8],

8 It is stipulated in regulations 23(3)(b) and 23A(3) of the B(P)R that the BA may, in determining the GFA of a building, disregard any floor space that he is satisfied is constructed or intended to be used solely for a

"exempted GFA"[9], and "bonus GFA"[10]. With a view to encouraging the incorporation of green features that would improve the quality of living space and enhance the sustainability of building developments, after consultation with the relevant stakeholders including building professionals, the industry and the then LegCo Panel on Planning, Lands and Works, the BD, LandsD and PlanD promulgated in February 2001 and February 2002 respectively two Joint Practice Notes, granting GFA concessions to a total of 12 green features[11].

ENQUIRY

27. Any enquiry on this brief may be addressed to Mr Edward To, Principal Assistant Secretary for Development (Planning and Lands) on 2848 6288.

Development Bureau
13 October 2010

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number of features such as parking of motor vehicles, refuse storage chambers, access facilities for telecommunications and broadcasting services (regulation 23(3)(b) of the B(P)R), back-of-house facilities in hotels, or other supporting facilities as may be approved by the Building Authority (regulation 23A(3) of the B(P)R).

9 Section 42(1) of the BO stipulates that where in the opinion of the BA 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. The BA exercises such power to grant GFA concessions for certain features, including green and amenity features and floor space not at ground level dedicated for public passage.

10 Regulation 22 of the B(P)R stipulates that if the dedication of set-back area for public passage or surrender of land for road widening at ground level is consented/acquired by the Government, bonus GFA equals to five times the area dedicated/surrendered or 20% of the permissible plot ratio, whichever is the lesser might be granted.

11 The 12 green features are – (a) balconies; (b) wider common corridors and lift lobbies; (c) communal sky gardens; (d) communal podium gardens; (e) acoustic fins; (f) sunshades and reflectors; (g) wing walls, wind catchers and funnels; (h) non-structural prefabricated external walls; (i) utility platforms; (j) mail delivery rooms with mailboxes; (k) noise barriers; and (l) communal sky gardens for non-residential buildings.

Annex A

Council for Sustainable Development

Report on the Public Engagement Process on Building Design to Foster a Quality and Sustainable Built Environment

(June 2010)

Table of Content

1 Executive Summary

1.1 Hong Kong is one of the most packed cities in the world. The Council for Sustainable Development ("SDC") has appreciated the importance of the relationship between urbanisation and sustainable development. Urban living space was one of the three issues[1] covered in the SDC's first public engagement exercise.

1.2 As a follow-up on the first public engagement process, the Government published "A First Sustainable Development Strategy for Hong Kong" ("First Strategy") on the three issues in 2005. On the issue of urban living space, one of the targets in the First Strategy is to maintain and review, inter alia, guidelines governing sustainable design with special regard to issues such as buildings affecting view corridors or restricting air flow. This public engagement exercise is to pursue the aforementioned First Strategy target with a view to achieving a quality and sustainable built environment.

1.3 To reflect public concerns and to facilitate meaningful public discussion, three issues were identified as the core subjects of the public engagement, namely, (1) sustainable building design guidelines on building separation, setback and greenery coverage, (2) gross floor area ("GFA") concessions, and (3) building energy efficiency.

1.4 During the course of the public engagement, various meetings and discussion forums with advisory bodies, professional bodies, environmental groups, District Councillors and other key stakeholders were held. The SDC received around 1,600 data sources of views[2] in the some four-month public

[1] The first public engagement exercise discussed three topics including urban living space, solid waste management and renewable energy.

[2] Data sources of views included around 1,400 written submissions collected through letters, emails, view collection forms and online discussion forums, as well as around 200 records of public engagement events and relevant media reports.

engagement phase in the latter part of 2009. All the views were collected and analysed by the Public Policy Research Institute of the Hong Kong Polytechnic University, the Independent Reporting Agency ("IRA") for this public engagement. The IRA's final report and analysis on the views collected is available at www.susdev.org.hk.

1.5 In this report, the SDC reflects the public aspiration on quality and sustainable built environment and makes recommendations on how the Government may take forward the three core subjects and related matters. The Government's response to this report will mark the final stage[3] of the engagement process.

1.6 The SDC's formulation of recommendations was a balancing process in which issues like desirability versus feasibility, public interests versus private ones, flat owners/potential owners versus developers, cost versus effectiveness, etc. were addressed in taking forward the core subjects with a view to achieving a quality and sustainable built environment. The process was in fact sustainable development in action: balancing the environmental, social and economic perspectives in development.

1.7 An overview of the public aspiration on what constitutes a quality and sustainable built environment, providing **a mandate for change**, is as follows –

Hong Kong should be developed into a metropolis where human and the environment interact harmoniously, with people having a sense of belonging to the natural environment and a sustainable lifestyle. It is about striking a balance between the environment and different human activities. By "environment", it means both the natural one and artificial ones that constitute district characteristics. Such a metropolis

[3] The SDC's public engagement process comprises five stages: 1) Identification of priority areas; 2) Preparation of an Invitation for Response ("IR") document to invite public responses; 3) Collection of views by directly engaging the wider community; 4) Independent analysis of community's views and preparation of SDC's report; and 5) Government's response and action.

would provide a healthy, green, enjoyable and spacious living environment with the following characteristics –

- There will be overall **planning** for desirable development intensity, provision of open space and greenery, and enhancing diversity in culture, leisure and heritage.

- The regulatory framework will allow for some **performance-based and site-specific flexibility** in the implementation of different policies regarding the built environment.

- The whole **building lifecycle** from project planning, design, procurement of materials, construction methods to be employed, up to operation, maintenance and even demolition of buildings will incorporate and practice the concept of sustainable development.

- **Architectures**, being the basic units of the built environment, will be of **people-oriented designs** with sustainable building design features, including building separation, setback, greenery coverage, energy-efficient features and installations, renewable energy installations, and features that preserve wind corridors and natural lighting.

- There will be a **transparent property market** in which potential buyers will be provided with all relevant information for making **informed decisions**.

- It will be **cost-effective** in delivering all of the above.

1.8 The public engagement revealed a **clear call from the community for change** with a strong public aspiration for a quality and sustainable built environment and that status quo is not an option. This clear public sentiment for change provides the basis for determining the general directions for the SDC to iron out the specific recommendations as follows –

(a) Sustainable Building Design Guidelines	**Recommendations**
(i) Building Separation	• For new building development or redevelopment site areas no less than two hectares or with continuous building width of no less than 60 metres, the Government should impose a mandatory minimum requirement for an intervening space equivalent to 20% to 33.3% of the total frontage area of the building or buildings[4] depending on the size of the sites and building height.
	• A mechanism should be worked out whereby adjustment of this requirement might be allowed upon scientific evidence (covering factors like site location and configuration, wind direction, air ventilation, urban climatic considerations, etc) produced by the party seeking it to prove that the deviations would result in the same performance as if the mandatory requirements were adhered to.
(ii) Building Setback	• On streets less than 15-metre wide, new building developments or redevelopments measured from ground level to a height of 15 metres should be mandatorily set back to provide space with a width of not less than 7.5 metres measured from the centre line of the street.
	• A mechanism should be worked out whereby adjustment of this requirement might be allowed having regard to factors like site area and configuration, wind direction, air ventilation, urban climatic considerations, pedestrian flow, local character, etc.
	• A justifiable compensation scheme should be put

[4] According to the "Consultancy Study on Building Design that Supports Sustainable Urban Living Space in Hong Kong" commissioned by the Buildings Department on which the proposed building separation in the IR document is based, for sites smaller than two hectares with a façade of 60 metres or more, there should be a 20% intervening space while for sites larger than two hectares, there should be a 25% to 33.3% intervening space, depending on the building height.

(a) Sustainable Building Design Guidelines	Recommendations
	together under which property owners would be appropriately compensated for compliance with the mandatory building setback requirement with reference to the location, benefits to the public and/or other relevant factors.
	• To align with the aforementioned recommendations regarding setback, the Government should review the current allowable maximum site coverage of 100 percent for the non-domestic part of buildings up to a height of 15 metres as allowed under the Building (Planning) Regulations (Cap. 123 sub. leg. F), with a view to reducing such coverage.
(iii) Site Coverage of Greenery	• The Government should impose mandatory minimum requirement to provide greenery for sites no less than 1,000m^2 in new building developments or redevelopments with fixed planting areas equivalent to 20% to 30% of the site areas[5], including greenery at the ground level as a priority, and podium and roof levels, depending on the size of the sites.
	• A monitoring mechanism with sanctions should be established to ensure that the greenery is properly maintained throughout the life of the building.
	• The Government should provide technical and/or financial assistance in collaboration with other public bodies, professional bodies, and/or non-governmental organisations where appropriate to promote greening in existing buildings.
	• Vertical greening for buildings should be further explored and promoted by the Government and its

[5] According to the "Consultancy Study on Building Design that Supports Sustainable Urban Living Space in Hong Kong" commissioned by the Buildings Department on which the proposed greenery coverage in the IR document is based, for site area of 1,000m^2 or more, there should be a minimum of 20% site coverage of greenery and for site area of two hectares and above, there should be a minimum of 30% site coverage of greenery.

(a) Sustainable Building Design Guidelines	**Recommendations**
	partners.
	• The Government should include greening in public sites and enhance greening in the public realm.
	• The Government should expedite the use of Greening Master Plans for holistic greening strategy and measures to be incorporated in the planning process.

(b) GFA Concessions	**Recommendations**
(i) Mandatory Features	• Status quo is recommended.
(ii) Green Features	• The level of GFA concessions for balconies and utility platforms should be reduced.
	• The maximum thickness of non-structural prefabricated external walls to be exempted from GFA calculation should be reduced, the magnitude of which should take into account the technical advancement in the production of prefabricated walls as well as the existing building safety standard.
	• The Government should do away with the GFA concessions for mail delivery room and it should not be classified as a green feature in the Joint Practice Notes.
	• GFA concessions should not be granted for wider common corridors unless natural ventilation is provided for.
(iii) Amenity Features	• The level of GFA concessions for recreational facilities and clubhouse should be reduced, especially for sites with higher domestic GFA.
	• The Government should review the level of GFA concessions for counter, kiosk, office store, guard room and lavatory for watchman.

(b) GFA Concessions	**Recommendations**
(iv) Car Parks	• The Government should review and update the Hong Kong Planning Standards and Guidelines ("HKPSG") on the provision of car parking spaces having regard to factors including but not limited to: (1) accessibility to mass transport systems (e.g. proximity to MTR stations) and other means of public transport in the vicinity of the building; (2) traffic management issues (e.g. illegal parking, traffic flow data, etc); (3) realistic estimate of demand for car parking spaces with reference to the targeted market segment of the building, and any other relevant factors, to allow for flexibility.
	• The Government should reduce the level of GFA concessions for car parks in general and promote underground car parks where technically feasible through provisions of relatively higher level of GFA concession as compared with that for their above-ground counterparts. Other factors such as energy efficiency in providing lighting and air ventilation to underground car parks should be taken into account in the design of the underground car parks.
(v) Public Passage or Road Widening	• The current policy and practice of incentivising such dedication may be maintained.
(vi) Categorisation of Different Features	• The Government should review the categorisation of the mandatory, green and amenity features regularly with a view to timely identifying what features are essential and should be mandatorily required with minimum standard specified and what features are merely desirable and whether their provision should continue to be incentivised with GFA concessions having regard to desirability in terms of improving the environment, benefits to the residents, whether they are value-adding, market trends, and any other relevant factors.
(vii) Capping GFA	• The Government should impose an overall cap on the

(b) GFA Concessions	Recommendations
Concessions	total GFA concessions to be granted and taking into account the individual caps in place for different features, and the actual experience gained upon implementation of the requirement, to consider, in the longer run, adopting a more performance-based and site-specific approach in determining the overall cap. For example, the Government may consider the feasibility of prescribing different levels of the overall cap corresponding to the overall environmental performance of the building by reference to certain benchmarks (e.g. BEAM Plus[6] rating), i.e. the higher the rating, the higher the overall cap.
(viii) Administration of GFA Concessions	• A channel should be established through which the Building Authority could regularly communicate with the industry, professional bodies, academia, etc. with a view to keeping abreast of the latest development in technology, building design, and the property market so that these factors can be taken into account in the review of the administration of GFA concessions.
	• Information relating to GFA concessions granted for all features should be required to be disclosed in sale brochures of new developments in layman-friendly ways.
	• The Government should review the administration of GFA concessions from time to time with a view to adopting a holistic, performance-based and site-specific approach taking into account different aspects covering urban planning, site configuration, technological advancement, environmental performance of the concerned building features and

[6] The new version of BEAM Plus, recognized by the Hong Kong Green Building Council, helps owners to make use of one assessment methodology with all good practices in planning, design, construction, management, operation and maintenance of buildings, and is aligned with relevant local and international standards to demonstrate the overall qualities of a building, be it a new or redevelopment building, or one that is in use.

(b) GFA Concessions	**Recommendations**
	designs (e.g. building separation, building setback, greenery coverage, energy efficient features, building height, etc), overall environmental performance of the building as a whole, and availability of other appropriate incentive schemes, to the extent possible.
(ix) Bay Windows	• The Government should review the desirability of bay windows and the current policy and practice of their exclusion from being counted in plot ratio. The review should be in the context of whether bay windows would improve the overall environmental performance of buildings and if affirmative, to what extent.

(c) Building Energy Efficiency	**Recommendations**
Building Energy Efficiency	• The subsequent statutory level of energy efficiency required under the mandatory Building Energy Codes should be periodically reviewed and enhanced to align with the swift advancement of related technology.
	• For exiting buildings, the Government should step up the provision of technical and/or financial assistance to their owners to encourage them to retrofit their buildings with energy efficient features/installations.
	• The Government should further promote the use of benchmarking and accreditation system (e.g. BEAM Plus or other assessment method to be developed by the Hong Kong Green Building Council covering different building environmental performance) for building energy efficiency and lifecycle building energy content to promote energy efficiency in both building's operation phase and construction phase. This may also be supplemented by greenhouse gas benchmarking. The accreditation of buildings may

(c) Building Energy Efficiency	Recommendations
	also be published online for public's easy reference to raise awareness.
	• District cooling system[7] should be extensively implemented across Hong Kong where appropriate.
	• The Government should consider providing additional building design guidelines to provide clear directions for the industry in the design of energy efficient buildings.
	• The Government should take a lead by setting a target in implementing energy efficiency initiatives in public buildings and promulgating the timeframe for achieving the target to provide a role model to showcase energy efficient building design and practices for the private sector.
	• The Government may consider reviewing the relevant regulations in terms of architectural design and building fabrication for reducing energy consumption in buildings and the scope of application of the Overall Thermal Transfer Value ("OTTV") in buildings with a view to extending its application to residential buildings.
	• The Government should consider issues such as building separation, building setback and urban greenery in concert with energy efficiency measures for reducing the overall energy demand in buildings for energy-driven ventilation, air-conditioning, artificial lighting, etc.
	• The Government should further enhance the promotion and education for the public on green lifestyles with a view to "amplifying" the maximum attainable energy efficiency of the building hardware.

[7] District Cooling System is a very large-scale centralized air conditioning system. It consists of one or more chiller plants to produce chilled water, and a closed loop network of underground pipes for distributing the chilled water to buildings within its service area for air conditioning purpose. The chilled water is pumped to individual buildings for use in their air conditioning systems and is then returned to the central chiller plant for re-chilling.

(d) Built Environment from a Wider Perspective	**Recommendations**
(i) Role of the Government	• The Government should enhance co-ordination between the relevant bureaux/departments concerning the built environment so that the whole process from planning, provision of infrastructures, the sale of land, up to design, development and operation of buildings would incorporate sustainability considerations.
	• The Government should forge stronger partnership with other stakeholders, including building professionals of different disciplines, developers, non-governmental organisations and the public to take forward future initiatives for achieving a quality and sustainable built environment.
	• The Government should, in collaboration with its partners, be a role model in adopting sustainable building design and energy efficient features in public buildings and should promote such design and features to other private developments.
	• The Government should, in collaboration with its partners, introduce and/or promote the use of accreditation system(s) as a benchmark for measuring the environmental performance of the building as a whole and various building designs, features and installations.
(ii) Regulatory Review	• The Government should further enhance the review and updating of the regulatory regime and the Buildings Department's practice notes with reference to the latest development in the world, and to keep abreast of community aspirations on the built environment in view of changes to building design, technology and sustainability concerns. The following public views may be useful for the

(d) Built Environment from a Wider Perspective	**Recommendations**
	Government's consideration on where to start the process: (1) to review some of the Buildings Department's practice notes to encourage/promote quality building design (e.g. for flexible approach to protruding and recessive parts of building in terms of GFA and site coverage calculation); (2) the OTTV be updated and the scope of OTTV requirements be extended; and (3) to review the current maximum allowable site coverage of 100 percent for the non-domestic part of buildings up to a height of 15 metres.
	• The Government should introduce building design standards where appropriate e.g. air ventilation assessment ("AVA"), building lifecycle carbon audit, etc for benchmarking.
	• The Government should promote the use of accreditation system(s) (e.g. BEAM Plus) to distinguish sustainable buildings (e.g. the Government would only rent buildings that have been accredited).
(iii) Planning Issues	• The Government should consider incorporating more scientific considerations in the planning process, e.g. collection and use of scientific data such as the Urban Climatic Map, AVA results, etc with the aid of 3-D modeling in prescribing site/district-specific development/design parameters where appropriate. Considering that conducting AVA and visual impact assessments ("VIA") for small sites may not be useful and cost-effective, AVA and VIA may be conducted on a case-by-case basis.
	• The Government should adopt an urban design plan to provide for detailed macro-level planning e.g. building density distribution, ridgelines, harbour-front, infrastructure, conservation, district

(d) Built Environment from a Wider Perspective	**Recommendations**
	character, etc down to micro-level planning such as harmony between built and natural environments (e.g. preservation of breezeways, natural light penetration, natural greenery, etc), streetscape, human scale considerations, and so on.
	• The Government should expedite the use of Greening Master Plan for long-term greening strategy and measures to be incorporated in the planning process.
	• The Government should review and update the HKPSG, with reference to the recommendations herein contained, in particular the provision of car parks, with due regard to overseas best practices, latest advances in technology, the local context, etc.
(iv) Information and Transparency	• The Government should require that information relating to GFA concessions granted for all features be disclosed in sales brochures of new developments in layman-friendly ways.
	• In the sales brochures of new developments, besides a breakdown of the constituents of "saleable area", the "gross floor area" of a flat unit should also include a breakdown of the apportioned share of common area, so that information relating to the other areas not within the flat unit but allotted thereto and included in the calculation of its price will be made available to potential purchasers in an easily understandable way.
(v) Education	• The Government should take specific actions to promote sustainable developments in different aspects, especially energy consumption, transportation modes, waste recycling, etc. with a view to changing the public's habit toward a more sustainable lifestyle.

1.9 The public has spoken their will – a will for a better future of Hong Kong. Beyond consideration of the recommendations and taking actions accordingly as in previous public engagement processes, the Government is recommended to closely examine the public's aspirations and take them as a guide in its future formulation of policies relating to the built environment.

1.10 While the effort to achieve a quality and sustainable built environment is a cross-sectoral one, the public has expressed the view that the Government should assume a leading role, and the SDC shares that view. With more cross-sector collaborations and public involvement in the process, the SDC trusts that we are taking the right direction in achieving a more sustainable Hong Kong.

2 Introduction and Background

2.1 Being one of the metropolises with the highest density in the world, Hong Kong has been very successful in catering for our ever growing population, in terms of housing, transportation, other infrastructures, etc. Before us is a picture of high-rise buildings with people shuffling through in-between amidst the rushing traffic. The hardware is all packed within one-fourth of Hong Kong's total land area. It is a very efficient and vibrant one-fourth. A simple observation follows: the denser the environment, the more vigorous the interaction between people and the environment.

2.2 Since its establishment in 2003, the Council for Sustainable Development ("SDC") has recognised that in order to find sustainable solutions, we must work together in finding the best choices for Hong Kong. With its first public engagement exercise launched in 2004, the SDC started a unique process of engaging Hong Kong people in important debates about the shape of our future, sharing with the community some of the problems that we faced and offering some possible scenarios and options for discussion and views expression.

2.3 In its first public engagement exercise on urban living space, solid waste management and renewable energy, the SDC has appreciated the importance of the relationship between urbanisation and sustainable development. It led to the Government's publication of "A First Sustainable Development Strategy for Hong Kong" ("First Strategy") on the three issues in 2005.

2.4 On the issue of urban living space, one of the targets in the First Strategy is to maintain and review, inter alia, guidelines governing sustainable design with special regard to issues such as buildings affecting view corridors or restricting air flow.

2.5 In recent years, there are growing public concerns over building-related issues, e.g. bulky buildings, wall-effect, heat island effect, etc. Seizing this opportunity, the SDC, in collaboration with the Government, launched its fourth public engagement on Building Design to Foster a Quality and Sustainable Built Environment in June 2009. This is an exercise to pursue the aforementioned First Strategy target with a view to achieving a quality and sustainable built environment.

2.6 Given building design covers a wide range of issues, focal points must be identified to stimulate meaningful discussions among the public. Three issues were identified as the core subjects of the public engagement, namely, (1) sustainable building design guidelines on building separation, setback and greenery coverage, (2) gross floor area ("GFA") concessions, and (3) building energy efficiency. These three issues reflect the recent public concerns. In the Invitation for Response ("IR") document issued for this public engagement, we have already explained why the public engagement has to be relatively confined – focusing on the design and layout of buildings within their sites, and the impacts they have on the quality and sustainability of the neighbourhood – which we are not going to repeat here. Notwithstanding, we believe it would be legitimate for us to reflect also those other issues that were found close to the hearts of many citizens as revealed in the engagement exercise so that they could be taken into consideration by the policy makers.

2.7 In this report, the SDC makes recommendations on how the Government may take forward the three core subjects and related matters.

2.8 The Public Policy Research Institute of the Hong Kong Polytechnic University, the Independent Reporting Agency ("IRA") for this public engagement, has analysed around 1,600

data sources of views[8] returned in the some four-month intensive public involvement phase having strong engagement with advisory bodies, professional bodies, environmental groups, District Councillors, etc. in the latter part of 2009. The IRA's final report and analysis on the views collected is available at www.susdev.org.hk.

2.9 Considering that the subjects of this public engagement are the most technical and complex so far undertaken, the SDC adopted a new approach of "brainstorming" for formulating the recommendations by lining up joint working sessions of the SDC, its Strategy Sub-Committee and an expert Support Group whereby SDC members could benefit from direct and in-depth discussions with the other two groups, especially the Support Group which was constituted by relevant professionals (building professionals such as architects, town planners, engineers and surveyors, academics, green groups, etc) and industry players for assisting the SDC in conducting this public engagement.

2.10 In conducting the public engagement and making our recommendations to the Government, we have remained truthful to our belief that sustainable development is about balancing – balancing the environmental, social and economic aspects of development, balancing the interests of the self and the community, and those of the present generation and the future generations.

2.11 This report represents the completion of the fourth stage[9] of the SDC's public engagement process. We look forward to the Government's response to the report and actions, which would mark the final stage of the engagement process.

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[8] Data sources of views included around 1,400 written submissions collected through letters, emails, view collection forms and online discussion forums, as well as around 200 records of public engagement events and relevant media reports.

[9] The SDC's public engagement process comprises five stages: 1) Identification of priority areas; 2) Preparation of an Invitation for Response ("IR") document to invite public responses; 3) Collection of views by directly engaging the wider community; 4) Independent analysis of community's views and preparation of SDC's report; and 5) Government's response and action.

3 Report on the Public Engagement

3.1 This public engagement is the fourth round of public engagement process undertaken by the SDC, and the most complicated and technical of all. Nevertheless, the launching ceremony on 20 June 2009 attracted more than 2,000 participants. With the support from 30 partner organisations, a total of 47 engagement events in various formats (excluding the launching ceremony) were rolled out, five of which were regional engagement sessions held across the territory. Various meetings and discussion forums with advisory bodies, professional bodies, environmental groups, District Councillors and other key stakeholders were held. A total of around 2,400 people from all walks of life participated in these events. There were also 18 roving exhibitions to disseminate information and invite people to give deeper thoughts to the problems and some possible solutions regarding our built environment.

3.2 To attract youngster's attention, a dedicated website had been launched to provide interactive infotainment for them. There was also an online discussion forum for web-surfers to provide views and comments under different threads. The SDC also made use of the Home Affairs Bureau's online Public Affairs Forum to solicit views from the Forum members. The SDC also organised photo competitions for secondary school students. Promotion was also done through TV and radio announcements in the public interest, radio segments, press briefings, interviews by both the print and electronic media, etc.

3.3 Around 1,600 data sources of views were considered. The exercise also once again arouses the public debate on various issues relating to bulky buildings which continues even when this report is being drafted. There were nearly 160 media reports on topics related to the public engagement. The IRA analysed all of these materials independently and presented a

report to assist the SDC in consolidating the public sentiment on different issues.

3.4 These submissions do not only respond to the specific issues outlined in the IR document. They show the public's views on how we can achieve a quality and sustainable built environment from a much wider perspective. In a nutshell, the public has made a clear call for change and favoured a holistic approach which allows for more performance-based and site-specific flexibility. In Chapter 4 on "Council's Recommendations" below, the public's aspirations and views to which the recommendations can be related back will be set out for reference. For a detailed qualitative analysis of all the submissions, please refer to the IRA's report now available at the SDC's website: www.susdev.org.hk.

3.5 To better harness the professional knowledge and expertise of members of the Support Group in its deliberation of the way forward, the SDC held joint sessions with its Strategy Sub-Committee and the Support Group to allow direct interaction with the experts and professionals on the two groups. This is of particular importance in this exercise as the recommendations to be made by the SDC have to be technically feasible, environmentally proven and compatible with the Hong Kong context, besides being credible.

3.6 It is the SDC's observation that the responses from the public provide substantive materials for the SDC to work on in the formulation of the recommendations and for the Government to refer to in the years to come in making policies related to the built environment. This bottom-up approach of the SDC's public engagement model would not have worked without support from the Support Group, partner organisations, key stakeholders and members of the public.

4 Council's Recommendations

4.0.1 While the public engagement focused on the three core subjects as mentioned in paragraph 2.6 above, the issues involved are quite complex already. Besides the technicality involved, any recommendations to be made by the SDC would likely have impacts on the interests of the general public, potential flat owners, private property owners and building professionals to various degrees. The SDC's formulation of recommendations was a balancing process in which issues like desirability versus feasibility, public interests versus private ones, flat owners/potential owners versus developers, cost versus effectiveness, etc. were addressed in taking forward the core subjects with a view to achieving a quality and sustainable built environment. The process was in fact sustainable development in action: balancing the environmental, social and economic perspectives in development. Regarding bearing of the costs incurred for the provision and maintenance of various building features, the SDC considers that users/beneficiaries of the building features in question should pay for the costs incurred as a principle.

4.0.2 The public engagement revealed a **clear call from the community for change** with a strong public aspiration for a quality and sustainable built environment and that status quo is not an option. The clear public sentiment for change in various aspects concerning the built environment as revealed in the engagement process provides the basis for determining the general directions for the SDC to iron out the specific recommendations. Professional and industry views (collected both during the process and from professionals and industry players inside the SDC, its Strategy Sub-Committee and the Support Group) provided perspectives on practicality, cost-effectiveness, overseas experience, the local context, etc. from which the SDC could fully discuss the possible impacts, potential effectiveness, feasibility, etc. in working out the recommendations in accordance with the guiding general

directions.

4.1 An Overview of the Public Aspiration on a Quality and Sustainable Built Environment

4.1.1 The public has provided considerable views on what constitute a quality and sustainable built environment in response to our call in the IR document. These views may not be directly addressing the three core subjects as mentioned in paragraph 2.6 above. However, they are of no less importance in setting the scene for the SDC in the formulation of its recommendations. By the same token, they should serve as a reference for the Government in the policy-making process to follow.

4.1.2 In this light, it is necessary to recapitulate the public's aspiration before proceeding onto the specific recommendations on the three core subjects –

Aspired quality and sustainable built environment

Hong Kong should be developed into a metropolis where human and the environment interact harmoniously, with people having a sense of belonging to the natural environment and a sustainable lifestyle. It is about striking a balance between the environment and different human activities. By "environment", it means both the natural one and artificial ones that constitute district characteristics. Such a metropolis would provide a healthy, green, enjoyable and spacious living environment with the following characteristics –

- There will be overall **planning** for desirable development intensity, provision of open space and greenery, and enhancing diversity in culture, leisure and heritage.

- The regulatory framework will allow for some **performance-based and site-specific flexibility** in the implementation of different policies regarding the built

environment.

- The whole **building lifecycle** from project planning, design, procurement of materials, construction methods to be employed, up to operation, maintenance and even demolition of buildings will incorporate and practice the concept of sustainable development.

- **Architectures**, being the basic units of the built environment, will be of **people-oriented designs** with sustainable building design features, including building separation, setback, greenery coverage, energy-efficient features and installations, renewable energy installations, and features that preserve wind corridors and natural lighting.

- There will be a **transparent property market** in which potential buyers will be provided with all relevant information for making **informed decisions**.

- It will be **cost-effective** in delivering all of the above.

4.1.3 As revealed in the public's aspiration, a quality and sustainable built environment is constituted by a wide range of elements although they may eventually be generalized as the human factor and the environment. Regarding the former, lifestyle and habits deliver the impact. That can be changed by education. As to the environment, the struggle lies between the as-is situation and how we want it to be. This involves comprehensive planning taking into account relevant scientific data for optimal results, as well as involving a balance of various considerations including community value. Flexibility has been highlighted in a considerable number of views as an important element to be incorporated in the building regulatory regime. Taking these altogether pictures the public's visions for the future of Hong Kong. While these visions are hardly concrete suggestions on the way forward, they are **a mandate for change**. They provide a good

reference to which the Government should make in formulating future policies relating to the built environment.

4.2 Sustainable Building Design Guidelines

4.2.0.1 The IR document put up specific proposals on building separation, building setback and site coverage of greenery to solicit public views on whether they should be adopted by the Government.

4.2.1 Building Separation

4.2.1.1 In response to the proposal mentioned in paragraph 5.2.5 of the IR document, there is prevailing public support for addressing the air ventilation problem and wall-effect through imposing mandatory requirements for intervening space between buildings. Some professional bodies and the trade have also highlighted the element of flexibility in implementation having regard to various factors, e.g. small sites (less than two hectares), wind direction, natural light penetration, building height, etc. The SDC **recommends** that the proposal be adopted, i.e. for new building development or redevelopment site areas no less than two hectares or with continuous building width of no less than 60 metres, the Government should impose a mandatory minimum requirement for an intervening space equivalent to 20% to 33.3% of the total frontage area of the building or buildings[10] depending on the size of the sites and building height. To facilitate some degree of performance-based and site-specific flexibility in line with the public sentiment, the SDC **recommends** that a mechanism be worked out whereby adjustment of this requirement might be allowed upon scientific evidence (covering factors like site

[10] According to the "Consultancy Study on Building Design that Supports Sustainable Urban Living Space in Hong Kong" commissioned by the Buildings Department on which the proposed building separation in the IR document is based, for sites smaller than two hectares with a façade of 60 metres or more, there should be a 20% intervening space while for sites larger than two hectares, there should be a 25% to 33.3% intervening space, depending on the building height.

location and configuration, wind direction, air ventilation, urban climatic considerations, etc) produced by the party seeking it to prove that the deviations would result in the same performance as if the mandatory requirements were adhered to.

4.2.2 Building Setback

4.2.2.1 The public shows support for the proposal of requiring building setback as a means to open up street canyons, to provide better pedestrian environment and to alleviate urban heat island effect (see paragraph 5.2.8 of the IR document), although there are some concerns over implementation in small sites and preservation of local character. The SDC **recommends** that on streets less than 15-metre wide, new building developments or redevelopments measured from ground level to a height of 15 metres should be mandatorily set back to provide space with a width of not less than 7.5 metres measured from the centre line of the street. To facilitate some degree of performance-based and site-specific flexibility in line with the public sentiment, the SDC **recommends** that a mechanism be worked out whereby adjustment of this requirement might be allowed having regard to factors like site area and configuration, wind direction, air ventilation, urban climatic considerations, pedestrian flow, local character, etc.

4.2.2.2 Acknowledging the fact that the lower floors of a building which could be reserved for retail premises are usually more valuable and mandatory setback might be an inroad into private property rights, the SDC **recommends** that a justifiable compensation scheme be put together under which property owners would be appropriately compensated for compliance with the mandatory building setback requirement with reference to the location, benefits to the public and/or other relevant factors. The existing mechanism of granting bonus GFA for road widening and public passageway may be referred to in the formulation of the compensation scheme.

4.2.2.3 Site coverage of buildings is the percentage of area occupied by the building bulk in relation to the total site area – the larger the site coverage, the lesser the space unoccupied by the building block within the site area. A bulky building at street level would adversely affect street environment and result in obstruction of natural ventilation. To align with the aforesaid recommendations regarding setback, the SDC further **recommends** that the Government should review the current allowable maximum site coverage of 100 percent for the non-domestic part of buildings up to a height of 15 metres as allowed under the Building (Planning) Regulations (Cap. 123 sub. leg. F), with a view to reducing such coverage.

4.2.3 Site Coverage of Greenery

4.2.3.1 The prevailing view favours the proposal of making site coverage of greenery compulsory in buildings (paragraph 5.2.12 of the IR document) because of greenery's positive effects in improving the environment, air quality, urban climatic condition, etc. Some professional bodies/green groups suggested that one-third to half of the required greenery should be provided at the ground level and vertical greening should also be promoted. The SDC **recommends** that the Government should impose mandatory minimum requirement to provide greenery for sites no less than 1,000m^2 in new building developments or redevelopments with fixed planting areas equivalent to 20% to 30% of the site areas[11], including greenery at the ground level as a priority, and podium and roof levels, depending on the size of the sites. As the sustainability of the greenery is a prerequisite to its effectiveness in improving the environment, the SDC **recommends** that a monitoring mechanism with sanctions be established to ensure that the greenery is properly maintained

[11] According to the "Consultancy Study on Building Design that Supports Sustainable Urban Living Space in Hong Kong" commissioned by the Buildings Department on which the proposed greenery coverage in the IR document is based, for site area of 1,000m^2 or more, there should be a minimum of 20% site coverage of greenery and for site area of two hectares and above, there should be a minimum of 30% site coverage of greenery.

throughout the life of the building.

4.2.3.2 To promote greening in existing buildings, the SDC **recommends** that the Government should provide technical and/or financial assistance in collaboration with other public bodies, professional bodies, and/or non-governmental organisations where appropriate to promote greening in existing buildings.

4.2.3.3 With it becoming popular in overseas countries, e.g. Japan, the SDC **recommends** that vertical greening for buildings should be further explored and promoted by the Government and its partners as mentioned in paragraph 4.2.3.2 above as appropriate.

4.2.3.4 To step up its leading role in promoting building greenery, the SDC **recommends** the Government to include greening in public sites and enhance greening in the public realm. From the planning perspective (see also the "Recommendations on Built Environment from a Wider Perspective" in section 4.5 below), the SDC also **recommends** that the Government should expedite the use of Greening Master Plans for holistic greening strategy and measures to be incorporated in the planning process.

4.3 Gross Floor Area ("GFA") Concessions

4.3.0.1 GFA concession is the most complex and controversial issue in the public engagement. It is used as an incentive for the provision of various building designs and features in new development projects as outlined in the IR document. While these features will improve the living quality of residents, GFA concessions for their provision have been considered a contributor for producing bulky buildings.

4.3.0.2 Regarding the provision of GFA concessions, the majority of views received are on GFA concessions for various mandatory,

green and amenity features, including car parks rather than on the concept of GFA concessions as incentives in general for various building features. GFA concession is not a simple "yes or no" question. It reveals that there is no simple and clear-cut direction for taking forward GFA concessions-related issues. Be that as it may, **status quo is however not an option** as the public does indicate inclinations in respect of specific GFA concessions issues.

4.3.0.3 The SDC exercises extreme care and vigilance in coming up with the recommendations. Having had the benefit of reference to the independent analysis on the public views by the IRA, the SDC deliberated on how to take forward these issues with a view to achieving sustainable development which was the only goal of the SDC. The process was about feasibility, cost-effectiveness, practicality, possible impacts on the operation of buildings, and striking a balance between different interests with no pre-set agenda for or against any particular groups.

4.3.1 GFA Concessions for Mandatory Features[12]

4.3.1.1 There are marginally more supporting views for providing GFA concessions for the provision of mandatory features than those requesting for a change. The major reason for support is that without GFA concession, developers may only provide mandatory features to the minimum standards which will affect the maintenance thereof. Different views such as no provision for GFA concessions for facilities that become necessities are also made. Under these circumstances, the SDC is not in a position to recommend any changes to the current regime.

[12] Mandatory features include pump rooms, CO_2 rooms, sewage treatment plant rooms, ducts for central ventilation or smoke extraction system, fire refuge floors, electricity & mechanical rooms, lift machine rooms, refuse storage & material recovery rooms, and telecommunication and broadcasting equipment rooms.

4.3.2 GFA Concessions for Green Features[13]

4.3.2.1 The potential positive impacts of green features on the environment and the enjoyment of individual flat owners are not denied but the public sentiment against provision of GFA concessions for some of them stems from such concessions resulting in bulky buildings and the adverse impact on the neighbourhood. Against this background, the SDC considered that some changes as outlined in the paragraphs below should be recommended.

4.3.2.2 Balconies and utility platforms are attractive features to many Hong Kong people. They are considered to be value-adding features in modern residential flats. However, some considered that such facilities are for the enjoyment of individual residents only and also add to the building bulk. While balconies and utility platforms should still be encouraged, it is considered that an adjustment to GFA concessions for them should not constitute a major factor against their provision in new developments. The SDC therefore **recommends** that the level of GFA concessions for balconies and utility platforms should be reduced.

4.3.2.3 Use of non-structural prefabricated external walls would help reduce pollution during the construction phase of buildings. However, the current maximum thickness of non-structural prefabricated external walls (300mm) being exempted from GFA calculation appears to be excessive. In the deliberation of this issue, the SDC took into account the minimum thickness technically feasible and whether the thickness should be linked to its thermal performance. Acknowledging that the Buildings Department has been requesting for more information from developers on the reasons for use of such

[13] Green features, as defined in Joint Practice Notes 1 and 2, include balconies, wider common corridors, sunshades, sky gardens, podium gardens, acoustic fins, utility platforms, mail delivery room with mail boxes, wing walls, wind catchers & funnels, non-structural prefabricated external walls and noise barriers.

prefabricated walls with the maximum thickness, the SDC **recommends** that the maximum thickness of non-structural prefabricated external walls to be exempted from GFA calculation be reduced, the magnitude of which should take into account the technical advancement in the production of prefabricated walls as well as the existing building safety standard.

4.3.2.4 Since mail delivery room can hardly be said to be enhancing the environment, the SDC **recommends** that the Government should do away with the GFA concessions for it and mail delivery room should not be classified as a green feature in the Joint Practice Notes in the review of categorisation of different features as recommended in paragraph 4.3.6.1 below.

4.3.2.5 GFA concession is granted for wider common corridor as a green feature. To account for its green element, the SDC **recommends** that GFA concessions should not be granted for wider common corridors unless natural ventilation is provided for.

4.3.3 GFA Concessions for Amenity Features[14]

4.3.3.1 "Amenity features" as a category covers a wide range of building facilities. While they may not be "essential" for the operation of buildings to be mandatorily required, their inclusion is generally desirable for improving the living condition of the building residents. There is less support for granting GFA concessions for amenity features than opposition as some of the amenity features are considered to constitute points of attractions of building developments. Recreational facilities and clubhouse are commonly packaged-in for marketing developments as luxury residential buildings which would increase their market value. The public also consider

[14] Amenity features include recreational facilities, pipe ducts, covered gardens/play areas, horizontal screens/covered walkways, larger lift shaft areas, miniature logistic service room in a multi-storey residential building, counters, kiosks, office stores, guard rooms and lavatories for watchmen and management staff, voids over prestige entrances of main common lobbies.

that unnecessarily large recreational facilities and clubhouse, coupled with GFA concessions therefor, would increase the building bulk substantially. Considering the above, the SDC **recommends** that the level of GFA concessions for recreational facilities and clubhouse should be reduced, especially for sites with higher domestic GFA.

4.3.3.2 Of the remaining amenity features, counter, kiosk, office store, guard room and lavatory for watchman are considered desirable for the management of the building. There are views that the afore-mentioned features have become standard provisions in modern buildings. The SDC **recommends** that the Government should review the level of GFA concessions for counter, kiosk, office store, guard room and lavatory for watchman.

4.3.4 GFA Concessions for Car Parks

4.3.4.1 Car park is a required feature under the Hong Kong Planning Standards and Guidelines ("HKPSG") to provide for sufficient car parking spaces to meet the demand of residents. However, negative public sentiment has built up against granting GFA concessions for car parks for different reasons. Some consider that car parks have adverse impact (e.g. increasing building bulk and height, encouraging use of private cars instead of public transport, etc.) on the environment and the residents at the vicinity and so they should not be promoted. There are also views that car parks are necessary features that do not warrant incentives. Others find that they provide rental/profit to developers for whom no further incentives should be provided. The SDC considers that the demand for car parks actually depends on a variety of factors including location of the building, availability of public transport, affordability of residents for owning cars, etc. The SDC **recommends** that the Government should review and update the HKPSG on the provision of car parking spaces having regard to factors including but not limited to: (1) accessibility

to mass transport systems (e.g. proximity to MTR stations) and other means of public transport in the vicinity of the building; (2) traffic management issues (e.g. illegal parking, traffic flow data, etc); (3) realistic estimate of demand for car parking spaces with reference to the targeted market segment of the building, and any other relevant factors, to allow for flexibility.

4.3.4.2 Given underground car parks would not be adding to the building bulk which would contribute to the urban heat island effect and obstruction of natural breezeway and that the building costs therefor would be relatively higher, many views support granting GFA concessions to them as opposed to their above-ground counterparts. The SDC **recommends** that the Government should reduce the level of GFA concessions for car parks in general and promote underground car parks where technically feasible through provisions of relatively higher level of GFA concession as compared with that for their above-ground counterparts. Other factors such as energy efficiency in providing lighting and air ventilation to underground car parks should be taken into account in the design of the underground car parks.

4.3.5 GFA Concessions for Public Passage or Road Widening

4.3.5.1 Since dedication of private area/space for public passage or road widening would improve both pedestrian environment and traffic management, there is more support than objection to granting GFA concessions for the same. The SDC **recommends** that the current policy and practice of incentivising such dedication may be maintained.

4.3.6 Categorisation of Different Features

4.3.6.1 Over the years, individual flat owners' expectations of buildings in which they reside change as technology advances. The market trend changes accordingly. Some of the

mandatory features may become obsolete while there may be newly emerged features that are essential for modern buildings. The SDC considered that the current categorisation of mandatory and amenity features may be further improved as the two lists are not entirely logical. The SDC therefore **recommends** that the Government should review the categorisation of the mandatory, green and amenity features regularly with a view to timely identifying what features are essential and should be mandatorily required with minimum standard specified and what features are merely desirable and whether their provision should continue to be incentivised with GFA concessions having regard to desirability in terms of improving the environment, benefits to the residents, whether they are value-adding, market trends, and any other relevant factors.

4.3.7 Capping GFA Concessions

4.3.7.1 Capping GFA concessions as an issue gains more support than objection. According to the IRA's analysis, a great majority of those who support for capping GFA concessions support an overall cap on the total GFA concessions to control the building bulk. The SDC also shares the public views about allowing greater design flexibility through an overall cap. The SDC **recommends** the Government to impose an overall cap on the total GFA concessions to be granted and taking into account the individual caps in place for different features, and the actual experience gained upon implementation of the requirement, to consider, in the longer run, adopting a more performance-based and site-specific approach in determining the overall cap. For example, the Government may consider the feasibility of prescribing different levels of the overall cap corresponding to the overall environmental performance of the building by reference to certain benchmarks (e.g. BEAM Plus[15] rating), i.e. the higher the rating, the higher the overall

[15] The new version of BEAM Plus, recognized by the Hong Kong Green Building Council, helps owners to make use of one assessment methodology with all good practices in planning, design, construction, management, operation and maintenance of buildings, and is aligned with relevant

cap. For the avoidance of doubt, the recommendation for an overall cap should not be taken to mean excluding individual caps already in place or being considered for various purposes, e.g. to ensure that not only those features with market value would be provided.

4.3.8 Administration of GFA Concessions

4.3.8.1 Considerable views call for improvement in the transparency and accountability in the process of granting GFA concessions by the Building Authority (i.e. the Director of Buildings) by providing clear guidelines, rules and/or regulations. Aside from views expressing the need for regular review and updating of related policies, the public also highlights that GFA concessions should not be universally applicable and regard should be had to the site concerned.

4.3.8.2 To ensure that the GFA concession scheme remains contemporary, the SDC **recommends** that a channel be established through which the Building Authority could regularly communicate with the industry, professional bodies, academia, etc. with a view to keeping abreast of the latest development in technology, building design, and the property market so that these factors can be taken into account in the review of the administration of GFA concessions.

4.3.8.3 Noting that the Buildings Department will require a detailed breakdown of all GFA concessions granted in new building developments to be shown on building plans as from 1 September 2010, to further address the public's demand for transparency, the SDC **recommends** that information relating to GFA concessions granted for all features should be required to be disclosed in sale brochures of new developments in layman-friendly ways.

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local and international standards to demonstrate the overall qualities of a building, be it a new or redevelopment building, or one that is in use.

4.3.8.4 The SDC further **recommends** that the Government should review the administration of GFA concessions from time to time with a view to adopting a holistic, performance-based and site-specific approach taking into account different aspects covering urban planning, site configuration, technological advancement, environmental performance of the concerned building features and designs (e.g. building separation, building setback, greenery coverage, energy efficient features, building height, etc), overall environmental performance of the building as a whole, and availability of other appropriate incentive schemes, to the extent possible.

4.3.9 Another Issue – Bay Windows

4.3.9.1 There are views from the professional bodies that bay windows would add to the overall building bulk and increase the overall heat absorption. While GFA concessions are not granted for them, projecting windows are currently not taken into account in the calculation of plot ratio provided that they satisfy certain criteria. The SDC opines that these views need to be addressed although the issue is beyond the GFA concessions realm. The SDC **recommends** the Government to review the desirability of bay windows and the current policy and practice of their exclusion from being counted in plot ratio. The review should be in the context of whether bay windows would improve the overall environmental performance of buildings and if affirmative, to what extent.

4.4 Building Energy Efficiency

4.4.1 Climate change as a global issue, attributable to carbon emission from use of fossil fuel, has increasingly become a concern of the Hong Kong people. There is support for the mandatory incorporation of energy efficient design and installations in buildings. Many views proposed further promotion of the use of renewable energy in both small scale

electricity generation (i.e. in buildings by installation of solar panel on the roof) and territory-wide electricity generation by the two electricity companies. Professional bodies supported the mandatory implementation of the Building Energy Codes; and the application of the Overall Thermal Transfer Value ("OTTV") be extended to all residential buildings. Construction materials and benchmarking are also areas drawing the public's attention. Taking note that the Government has taken various measures to promote building energy efficiency, e.g. initiating the legislative process for making the Building Energy Codes mandatory; the launch of the HK$450 million Buildings Energy Efficiency Funding Schemes, etc., the SDC **recommends** that the subsequent statutory level of energy efficiency required under the mandatory Building Energy Codes should be periodically reviewed and enhanced to align with the swift advancement of related technology. For existing buildings, the SDC **recommends** that the Government should step up the provision of technical and/or financial assistance to their owners to encourage them to retrofit their buildings with energy efficient features/installations.

4.4.2 The SDC further **recommends** that the Government should further promote the use of benchmarking and accreditation system (e.g. BEAM Plus or other assessment method to be developed by the Hong Kong Green Building Council covering different building environmental performance) for building energy efficiency and lifecycle building energy content to promote energy efficiency in both building's operation phase and construction phase. This may also be supplemented by greenhouse gas benchmarking. The accreditation of buildings may also be published online for public's easy reference to raise awareness.

4.4.3 Air-conditioning accounts for a substantial amount of electricity consumption in Hong Kong. District cooling system [16] would help reduce energy consumption on

[16] District Cooling System is a very large-scale centralized air conditioning system. It consists of

air-conditioning. Acknowledging that the Government will implement district cooling system in South East Kowloon Development, the SDC **recommends** that district cooling system should be extensively implemented across Hong Kong where appropriate.

4.4.4 To further promote energy efficient building design in the private sector, the SDC **recommends** that the Government should consider providing additional building design guidelines to provide clear directions for the industry in the design of energy efficient buildings. To be an impetus, the Government is also **recommended** to take a lead by setting a target in implementing energy efficiency initiatives in public buildings and promulgating the timeframe for achieving the target to provide a role model to showcase energy efficient building design and practices for the private sector.

4.4.5 Being a major piece of legislation in the regulatory framework of the built environment, the Buildings Ordinance can be further enhanced in terms of energy efficiency. The SDC **recommends** that the Government may consider reviewing the relevant regulations in terms of architectural design and building fabrication for reducing energy consumption in buildings and the scope of application of OTTV in buildings with a view to extending its application to residential buildings.

4.4.6 As the overall energy efficiency of a building depends on all attributes thereof, Government is also **recommended** to consider issues such as building separation, building setback and urban greenery in concert with energy efficiency measures for reducing the overall energy demand in buildings for energy-driven ventilation, air-conditioning, artificial lighting, etc.

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one or more chiller plants to produce chilled water, and a closed loop network of underground pipes for distributing the chilled water to buildings within its service area for air conditioning purpose. The chilled water is pumped to individual buildings for use in their air conditioning systems and is then returned to the central chiller plant for re-chilling.

4.4.7 Hardware aside, the human factor is the other important determining factor of energy consumption. People's lifestyle directly impacts on the environment. The SDC therefore **recommends** that the Government should further enhance the promotion and education for the public on green lifestyles with a view to "amplifying" the maximum attainable energy efficiency of the building hardware.

4.4.8 Although the SDC does not make recommendations on these installations considering their cost-effectiveness, the Government may also wish to note that many views proposed further promotion of the use of renewable energy in small scale electricity generation in buildings by installation of solar panel and wind-turbines on the roof. There are also views on using renewable energy in territory-wide electricity generation by the two electricity companies. Environmentally friendly construction materials are also areas drawing the public's attention.

4.5 Recommendations on Built Environment from a Wider Perspective

4.5.0.1 To achieve a quality and sustainable built environment involves a wide range of complex issues. This public engagement process does not attempt to cover all the issues, which would be impractical. Understandably, there were views pointing out that the IR document was too focused on the few issues covered without attempting to address the wider issues involved in the built environment. While the current scope followed up on the public engagement on urban living space in 2004 and was meant to engage the public on specific building design issues to facilitate public discussion, the SDC considers it necessary to respond to the public sentiment by addressing these wider issues.

4.5.1 Role of the Government

4.5.1.1 Prevailing views suggest that the Government should be more responsive to problems, provide more incentives and penalties to encourage sustainable features and take the lead on sustainable development. It is also expected that the Government should set good examples in public buildings.

4.5.1.2 One of the major public sentiments throughout the engagement process is to adopt a holistic approach in achieving a sustainable environment which is not possible without the underpinning by robust co-ordination between relevant authorities. The Government is therefore **recommended** to enhance the co-ordination between the relevant bureaux/departments concerning the built environment so that the whole process from planning, provision of infrastructures, the sale of land, up to design, development and operation of buildings would incorporate sustainability considerations.

4.5.1.3 Co-ordination within the Government is just a first step. Private sectors' involvement is equally important for bringing about changes. The SDC **recommends** that Government should forge stronger partnership with other stakeholders, including building professionals of different disciplines, developers, non-governmental organisations and the public to take forward future initiatives for achieving a quality and sustainable built environment.

4.5.1.4 Reflecting the public views, the SDC **recommends** that the Government, in collaboration with its partners as mentioned in paragraph 4.2.3.2 above, should be a role model in adopting sustainable building design and energy efficient features in public buildings and should promote such design and features to other private developments. The SDC also **recommends** that the Government, in collaboration with its partners as mentioned in paragraph 4.2.3.2 above, should introduce and/or promote the use of accreditation system(s) as a benchmark for measuring the environmental performance of the building as a

whole and various building designs, features and installations.

4.5.2 Regulatory Review

4.5.2.1 The current regulatory framework and practice notes are considered by many to be "out-of-sync" with the development of our city. Reasons include lack of performance-based flexibility, sustainable considerations not incorporated, etc. The SDC **recommends** that the Government should further enhance the review and updating of the regulatory regime and the Buildings Department's practice notes with reference to the latest development in the world, and to keep abreast of community aspirations on the built environment in view of changes to building design, technology and sustainability concerns. In this connection, the SDC would like to draw the Government's attention to the following views that may be useful for the Government's consideration on where to start the process: (1) to review some of the Buildings Department's practice notes to encourage/promote quality building design (e.g. for flexible approach to protruding and recessive parts of building in terms of GFA and site coverage calculation); (2) as recommended in paragraph 4.4.5 above, the OTTV be updated and the scope of OTTV requirements be extended; and (3) to review the current maximum allowable site coverage of 100 percent for the non-domestic part of buildings up to a height of 15 metres as outlined in paragraph 4.2.2.3 above.

4.5.2.2 For the purpose of incorporating more scientific considerations in prescribing planning and building parameters, the Government is **recommended** to introduce building design standards where appropriate e.g. air ventilation assessment ("AVA"), building lifecycle carbon audit, etc for benchmarking.

4.5.2.3 As mentioned in paragraph 4.5.1.4 and some other paragraphs above, environmental performance benchmarking is an important aspect for achieving sustainable built environment.

The SDC **recommends** that the Government should promote the use of accreditation system(s) (e.g. BEAM Plus) to distinguish sustainable buildings (e.g. the Government would only rent buildings that have been accredited).

4.5.3 Planning Issues

4.5.3.1 A significant number of views suggested that a quality and sustainable built environment could not be achieved without considering a wide spectrum of issues involved in planning and design. While GFA concessions are acknowledged as exacerbating the height and bulk of buildings, some stakeholders have expressed that, in achieving a quality and sustainable built environment, another key factor lies with the process of setting out in the Outline Zoning Plans ("OZPs") in conjunction with lease conditions and design briefs the development parameters such as plot ratio, and height and bulk of new developments.

4.5.3.2 Some people have expressed the aspiration of reduced density in the urban environment and this may be achieved by a variety of strategies. It is clear from views expressed in the community that no single approach is favoured. Changes in land use policy, relaxation of plot ratio in the urban fringe have both been suggested. Others favour density control and measures to benchmark and conduct environmental performance assessment.

4.5.3.3 To respond to the call for planning parameters being supported by scientific data, the SDC **recommends** that the Government should consider incorporating more scientific considerations in the planning process, e.g. collection and use of scientific data such as the Urban Climatic Map, AVA results, etc with the aid of 3-D modeling in prescribing site/district-specific development/design parameters where appropriate. Considering that conducting AVA and visual impact assessments ("VIA") for small sites may not be useful and

cost-effective, AVA and VIA may be conducted on a case-by-case basis. The SDC takes note of the Government's on-going review of the OZPs with a view to incorporating comprehensive development restrictions, e.g. building height restriction as a first step. On the other hand, the Planning Department is conducting an Urban Climatic Map and Standards for Wind Environment Feasibility Study. These efforts are undoubtedly conducive to improving the planning process.

4.5.3.4 To implement a holistic approach, it is also **recommended** that the Government should adopt an urban design plan to provide for detailed macro-level planning e.g. building density distribution, ridgelines, harbour-front, infrastructure, conservation, district character, etc down to micro-level planning such as harmony between built and natural environments (e.g. preservation of breezeways, natural light penetration, natural greenery, etc), streetscape, human scale considerations, and so on.

4.5.3.5 Forming an important part of a sustainable environment, greenery should be covered in the planning process. The SDC welcomes the Civil Engineering and Development Department's use of Greening Master Plan for providing greenery in some districts. To further enhance urban greening, the SDC **recommends** that the Government should expedite the use of Greening Master Plan for long-term greening strategy and measures to be incorporated in the planning process.

4.5.3.6 There are public calls for reviews of different aspects of the Hong Kong Planning Standards and Guidelines ("HKPSG"). The SDC **recommends** that the Government should review and update the HKPSG, with reference to the recommendations herein contained, in particular, the provision of car parks as outlined in paragraph 4.3.4.1 above, with due regard to overseas best practices, latest advances in technology, the local context, etc.

4.5.4 Information and Transparency

4.5.4.1 Considerable views expressed discontent with the transparency of the property market, especially inaccessibility to information on GFA concessions for different features. Noting that the definition of "saleable area" has been standardized under the Lands Department's Consent Scheme since October 2008, the views indicate that further efforts should be considered to enhance the awareness of the public and prospective flat buyers on the standardized definition of "saleable area".

4.5.4.2 The SDC welcomes the Financial Secretary's nine proposals for enhancing the sales arrangement and the dissemination of pricing and transaction information of first-hand private residential properties. The Buildings Department's new requirement for a detailed breakdown of all GFA concessions granted in new building developments to be shown on building plans, which would be publicized online, as from 1 September 2010 is definitely a good step in the right direction. As a further step, recapitulating the recommendation in paragraph 4.3.8.3 above, the SDC **recommends** that the Government should require that information relating to GFA concessions granted for all features be disclosed in sales brochures of new developments in layman-friendly ways.

4.5.4.3 To enable potential purchasers to be fully informed of the details of the flat units they are considering buying, the SDC **recommends** that in the sales brochures of new developments, besides a breakdown of the constituents of "saleable area", the "gross floor area" of a flat unit should also include a breakdown of the apportioned share of common area, so that information relating to the other areas not within the flat unit but allotted thereto and included in the calculation of its price will be made available to potential purchasers in an easily understandable way.

4.5.5 Education

4.5.5.1 As mentioned in paragraph 4.1.3 above, education changes human behaviour leading to a change in lifestyle without which the built environment could never be truly of quality and sustainable. A generally sustainable lifestyle would also provide a drive for further improvement in the sustainability of the built environment. Public views also highlight its importance. The SDC **recommends** that the Government should take specific actions to promote sustainable developments in different aspects, especially energy consumption, transportation modes, waste recycling, etc. with a view to changing the public's habit toward a more sustainable lifestyle.

4.6 Summary of Recommendations

Recommendations	**Parties Involved**	**Ref. in Report**
Mandatory building separation be required	Government	4.2.1.1
To work out a performance-based mechanism to allow flexibility for mandatory building separation	Government	4.2.1.1
Mandatory building setback be required	Government	4.2.2.1
To work out a performance-based mechanism to allow flexibility for mandatory building setback	Government	4.2.2.1
Compensation scheme for building setback	Government	4.2.2.2
Review 100% site coverage of non-domestic part of buildings	Government	4.2.2.3
Mandatory site coverage of greenery be required	Government	4.2.3.1
To establish a monitoring mechanism on maintenance of greenery	Government	4.2.3.1
Technical and/or financial assistance for existing buildings to promote greening	Government and partner organisations	4.2.3.2
To explore and promote vertical greening	Government and	4.2.3.3

Recommendations	Parties Involved	Ref. in Report
	partner organisations	
Greening in public realm	Government	4.2.3.4
To expedite use of Greening Master Plans	Government	4.2.3.4
Status quo for GFA concessions for mandatory features	Government	4.3.1.1
To reduce GFA concessions for balconies and utility platforms	Government	4.3.2.2
To reduce GFA concessions for non-structural prefabricated external wall	Government	4.3.2.3
To do away with GFA concessions for mail delivery room as a green feature	Government	4.3.2.4
GFA concessions only for wider corridors with natural ventilation	Government	4.3.2.5
To reduce GFA concessions for recreational facilities/clubhouse, especially for sites with higher domestic GFA	Government	4.3.3.1
To review GFA concessions for counter, kiosk, office store, guard room and lavatory for watchman	Government	4.3.3.2
To review provision of car parking spaces in HKPSG	Government	4.3.4.1
To reduce GFA concessions for above-ground car parks and promote underground car parks through provision of relatively higher GFA concessions	Government	4.3.4.2
Status quo for GFA concessions for public passage or road widening	Government	4.3.5.1
To review categorisation of different types of features and GFA concessions therefor	Government	4.3.6.1
To impose an overall cap on total GFA concessions and in the longer run adopt a performance-based and site-specific approach	Government	4.3.7.1
Building Authority to establish communication channel with relevant key stakeholders	Government, the industry, professional	4.3.8.2

Recommendations	Parties Involved	Ref. in Report
	bodies, academia, etc.	
GFA concessions information in sales brochures	Government, authorized persons and developers	4.3.8.3
To review administration of GFA concessions in a holistic approach	Government, the industry, professional bodies, academia, etc.	4.3.8.4
To review desirability of bay window	Government	4.3.9.1
To review Building Energy Codes from time to time	Government	4.4.1
To provide assistance to existing buildings for retrofitting	Government	4.4.1
To promote use of building energy efficiency benchmarking and accreditation system	Government	4.4.2
To implement district cooling system where appropriate	Government	4.4.3
To provide additional building design guidelines for building energy efficiency	Government	4.4.4
To take a lead by setting a target in implementing energy efficiency initiatives in public buildings and promulgating the timeframe for achieving the target	Government	4.4.4
To review the building regulatory regime in terms of architectural design for reducing energy consumption and scope of OTTV	Government	4.4.5
To consider other relevant issues in concert with energy efficiency measures in buildings	Government	4.4.6
To enhance promotion and education for the public on green lifestyles	Government	4.4.7
To enhance co-ordination between relevant government bureaux/departments concerning the built environment	Government	4.5.1.2
To forge stronger partnership with other	Government,	4.5.1.3

Recommendations	Parties Involved	Ref. in Report
stakeholders	building professionals, developers, non-governmental organisations and the public	
To be a role model in adopting energy efficient features in public buildings	Government and its partners	4.5.1.4
To promote the use of accreditation system(s) for measuring environmental performance	Government and its partners	4.5.1.4
To review the building regulatory regime	Government	4.5.2.1
To introduce building design standards for benchmarking	Government	4.5.2.2
To promote the use of accreditation system(s) to distinguish sustainable buildings	Government	4.5.2.3
To consider incorporating more scientific considerations in the planning process	Government	4.5.3.3
To adopt an urban design plan	Government	4.5.3.4
To expedite the use of Greening Master Plan	Government	4.5.3.5
To review and update HKPSG	Government	4.5.3.6
GFA concessions information in sales brochures	Government, authorized persons and developers	4.5.4.2
To provide a breakdown of the apportioned share of common area included in the “gross floor area” of a flat unit in sales brochures	Government and developers	4.5.4.3
To take specific actions to promote sustainable developments	Government	4.5.5.1

5 Closing Words – One More Recommendation”

5.1 Throughout this public engagement, like the community at large, the SDC had very constructive internal discussions on all the issues involved. The process was challenging. The SDC analysed the views collected with the assistance of the IRA and formulated the recommendations with the underpinning of its Strategy Sub-Committee and the expert Support Group. The discussions among SDC, Strategy Sub-Committee and Support Group members were vigorous, thought-provoking and also educational, especially when the recommendations were formulated. In the formulation of the recommendations, the SDC made every effort to make sure that they would be practical and feasible, sound and effective, contemporary, fair and unbiased, balanced in terms of both benefits and burden, non-prescriptive, and most importantly, progressive toward our common goal of achieving a quality and sustainable built environment.

5.2 Be that as it may, the story does not end there. The public has spoken their will – a will for a better future of Hong Kong. Hong Kong should be proud of her visionary citizens. In this light, the SDC would like to impress upon one thing – what has been revealed in this public engagement is much more than the SDC’s recommendations.

5.3 Beyond consideration of the recommendations and taking actions accordingly as in previous public engagement processes, the Government is recommended to closely examine the public’s aspirations and take them as a guide in its future formulation of policies relating to the built environment. At the risk of repetition, some major themes are highlighted here as a recapitulation of the directions the public would like the Government to be taking: (1) a holistic approach with incorporation of more scientific considerations in the town planning, (2) more performance-based and site-specific flexibility in the regulatory framework, (3) sustainable building lifecycle, (4) encouraging people-oriented building design, and

(5) enhancing transparency in the property market to protect prospective purchasers' interests.

5.4 For the avoidance of doubt, the SDC is not saying that the Government should bear the burden solely. Everyone in the community has his/her share of responsibility to bear. However, there is no better party than the Government in assuming a leading role, just as the public has indicated. With more cross-sector collaborations and public involvement in the process, the SDC trusts that we are taking the right direction in achieving a more sustainable Hong Kong.

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Annex B

The Administration's Response to Recommendations in the Council for Sustainable Development's Report on "Building Design to Foster a Quality and Sustainable Built Environment"

Item	Recommendation	Response & Action
(a)	**Sustainable Building Design Guidelines**	
1	**Building Separation** To impose a mandatory requirement for an intervening space equivalent to 20% to 33.3% of the total frontage area of the building or buildings[1] depending on the size of the sites for new building development or redevelopment site areas no less than two hectares or with continuous building width of no less than 60 metres. (paragraph 4.2.1.1)	Agreed. This requirement will be mandated through various means: imposed, where possible, as a condition attached to a planning permission or as a lease condition in government land sales or lease modification/land exchange. The requirement will also be made a prerequisite for building applications seeking gross floor area (GFA) concessions for non-mandatory design and facilities such as podium and sky gardens, green and amenity features.
2	**Building Separation – Adjustment Mechanism** To work out a mechanism whereby adjustment of this requirement might be allowed upon scientific evidence (covering factors like site	Agreed. This adjustment mechanism will take the form of the Buildings Department (BD)'s existing Building Committee (BC) being expanded, on a need basis, to include non-Government experts from the relevant fields to provide expert advice on individual projects upon

[1] According to the "Consultancy Study on Building Design that Supports Sustainable Urban Living Space in Hong Kong" commissioned by the Buildings Department on which the proposed building separation in the IR document is based, for sites smaller than two hectares with a façade of 60 metres or more, there should be a 20% intervening space. For sites larger than two hectares, there should be a 25% or 33.3% intervening space, depending on the building height.

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	location and configuration, wind direction, air ventilation, urban climatic considerations, etc) produced by the party seeking it to prove that the deviations would result in the same performance as if the mandatory requirements were adhered to. (paragraph 4.2.1.1)	evidence or justifications for deviation from the prescribed requirements produced by the applicant. This expanded BC is intended to facilitate consideration of development proposals incorporating sustainable and innovative designs or deviations in various technical/professional aspects (e.g. energy efficiency, environmental performance, etc.). While Air Ventilation Assessment (AVA) system[2] is accepted as an assessment tool and the "Wind Velocity Ratio" is accepted as a performance-based indicator, the BD will explore further with experts in studying the application of other available technical tools (such as Urban Climatic Map) and related scientific considerations in the process of setting standards and guidelines, practices and procedures in the adjustment mechanism, especially in setting any case/site specific requirements within the adjustment mechanism. Regarding the development of a performance benchmark for AVA, corresponding study undertaken by the Planning Department (PlanD) entitled "Urban Climate Map and Standards for Wind Environment – Feasibility Study" is underway and is targeted for completion in 2010.
3	**Building Setback** To provide space with a width of not less than 7.5 metres measured from the centre line of street of less than 15-metre wide by mandatorily setting back new building developments or	Agreed. For implementation, please refer to item 1 above.

[2] "Technical Guide for Air Ventilation Assessment for developments of Hong Kong" jointly issued by the then Housing, Planning and Lands Bureau and the then Environment, Transport and Works Bureau in 2006, subsequent to the completion of Planning Department's "Feasibility Study for Establishment of Air Ventilation Assessment System" (the AVA Study) in 2005.

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	redevelopments measured from ground level to a height of 15 metres. (paragraph 4.2.2.1)	
4	**Building Setback – Adjustment Mechanism** To work out a mechanism whereby adjustment of this requirement might be allowed having regard to factors like site area and configuration, wind direction, air ventilation, urban climatic considerations, pedestrian flow, local character, etc. (paragraph 4.2.2.1)	Agreed. For implementation, please refer to item 2 above.
5	**Building Setback – Compensation Scheme** To put together a justifiable compensation scheme under which property owners would be appropriately compensated for compliance with the mandatory building setback requirement with reference to the location, benefits to the public and/or other relevant factors. (paragraph 4.2.2.2)	Areas covered by mandatory building setback will be exempted from GFA calculation. In addition, the BD will continue to apply the statutory provision to grant bonus GFA of up to five times of the setback area subject to a maximum of 20% of the permitted plot ratio if such area is dedicated for public passageway. Otherwise no bonus GFA will be granted. No compensation will be provided if no dedication of private land is involved, or the statutory plan/lease condition does not allow GFA concessions due to special site circumstances such as special need to control the building mass.
6	**Building Setback – Site Coverage at Podium Level** To align government policies regarding setback, the Government should review the current	We agree with the Council that large podiums are one of the causes of street canyons as they hinder air flow from the upper stratum to the pedestrian level. We are reviewing the current maximum site coverage at podium level

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	allowable maximum site coverage of 100 percent for the non-domestic part of buildings up to a height of 15 metres as allowed under the Building (Planning) Regulations (B(P)R) (Cap. 123 sub. leg. F), with a view to reducing such coverage. (paragraph 4.2.2.3)	and will pursue legislative amendment to section 20(3) of the B(P)R for reducing the coverage. The Regulation currently allows 100% site coverage at podium level up to a height of 15 m for non-domestic section of a composite building. The reduction in site coverage will increase permeability of the street space and improve the pedestrian environment condition. The reduced site coverage may also free up space for building setback and at-grade greening.
7	**Site Coverage of Greenery** To impose mandatory requirement to provide greenery for sites no less than 1,000 m^2 in new building developments or redevelopments with fixed planting areas equivalent to 20% to 30% of the site areas[3], including greenery at the ground level as a priority, and podium and roof levels, depending on the size of the sites. (paragraph 4.2.3.1)	Agreed. For implementation, please refer to item 1 above. Currently, a green coverage of 20-30% and a minimum green coverage at ground (or at-grade) level are usually specified in planning studies and planning briefs for new development or comprehensive redevelopment areas / sites.
8	**Site Coverage of Greenery – Monitoring Mechanism** To establish a monitoring mechanism with sanctions to ensure that the greenery is properly maintained throughout the life of the building.	Enforcing "green coverage" requirement through lease is both difficult and impractical. Instead of putting in place a formal monitoring mechanism with sanctions, we will step up public education to encourage owners and management companies to properly maintain the greenery in their properties. We are mindful of the difficulties in enforcing such requirements in developed

[3] According to the "Consultancy Study on Building Design that Supports Sustainable Urban Living Space in Hong Kong" commissioned by the BD on which the proposed greenery coverage in the IR document is based, for site area of 1,000 m^2 or more, there should be a minimum of 20% site coverage of greenery. For site area of two hectares and above, there should be a minimum of 30% site coverage of greenery.

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	(paragraph 4.2.3.1)	properties, in particular in domestic buildings where titles are sold to separate individual owners. We will consider further measures to encourage the public to maintain their greenery.
9	**Site Coverage of Greenery – Existing Buildings** To provide technical and/or financial assistance in collaboration with other public bodies, professional bodies, and/or non-governmental organisations where appropriate to promote greening in existing buildings. (paragraph 4.2.3.2)	The Government has been collaborating with other public bodies, professional bodies and non-governmental organisations to promote greening in existing buildings. Award schemes are run by Leisure and Cultural Services Department to recognise good practices in housing estates. The newly established Greening and Landscape Office (GLO) in the Development Bureau (DEVB) will also help promote greening in existing buildings, in particular skyrise greening and vertical greening, by raising awareness, disseminating technical know-how and publicising success stories through organising exhibitions, seminars and experience-sharing sessions as well as posting information on the DEVB's greening website. The GLO will collaborate with relevant stakeholders in taking this forward. Non-profit-making bodies may apply to the Environment and Conservation Fund for financial assistance on greening projects.
10	**Site Coverage of Greenery – Vertical Greening** To further explore and promote vertical greening for buildings by the Government and its partners. (paragraph 4.2.3.3)	The Government supports the wider adoption of vertical greening in Hong Kong and has been leading by example by incorporating vertical greening design in new and retrofitting building projects of the Government wherever practicable. The Government will continue its efforts in this regard by promoting awareness of vertical greening in Hong Kong, carrying out research to lower the technical threshold for adopting such greening technique and sharing technical know-how among parties concerned.

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		Moreover, the BD is considering to accept vertical greening (with a certain reduction factor) for the compliance with the requirement on site coverage of greenery, which is one of the pre-requisites for building applications seeking GFA concessions for non-mandatory design and facilities such as podium and sky gardens, green and amenity features. A publication of a set of guidelines on the greening requirements in respect of vertical greening and skyrise greening for Government projects is under preparation by the DEVB.
11	**Site Coverage of Greenery – Greening in Public Realm** To include greening in public sites and enhance greening in the public realm. (paragraph 4.2.3.4)	The Government has been actively promoting greening to improve the living environment through active planting, proper maintenance and preservation of vegetation. We have been proactively carrying out the greening measures set out in the Greening Master Plans (GMPs) for urban districts, and a study for formulating GMPs for the New Territories is under planning. The PlanD and Housing Department will jointly issue a set of interim guidelines for green coverage in public housing developments.
12	**Site Coverage of Greenery – Greening Master Plan** To expedite the use of GMPs for long-term greening strategy and measures to be incorporated in the planning process. (paragraph 4.2.3.4)	As above.

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(b)	**GFA Concessions (Note: A detailed summary of the new arrangement for GFA concessions for various features is at Appendix)**	
13	**Mandatory Features** Status quo is recommended. (paragraph 4.3.1.1)	Mandatory features such as plant rooms for building services installations are essential for proper building operation and maintenance. If these features have to account for GFA calculation, developers may only provide mandatory features to the minimum standards which will affect the operation and/or maintenance thereof. In view of this, we agree with the Council that the current policy and practice of exempting such features from GFA calculation should continue. For consistency, we will re-categorise fire refuge floor currently treated as a feature exempted through the Building Authority's discretionary power as a mandatory feature. Furthermore, mandatory features' GFA will be assessed on their own and will not be made subject to the overall cap on GFA concessions (please see item 24 below).
14	**Green Features – Balconies and Utility Platforms** To reduce the level of GFA concessions for balconies and utility platforms. (paragraph 4.3.2.2)	Agreed. We will reduce the level of GFA concession by exempting only 50% of the area of a balcony from GFA calculation, subject to a maximum concession of 3 m² or 2.5% of usable floor space of the flat (whichever is smaller). A minimum size of 2 m^2 will also be imposed. Similarly, we will reduce the GFA concession for utility platforms by exempting only 50% of its area, subject to a maximum concession of 0.75 m^2.
15	**Green Features – Non-structural Prefabricated Walls**	Agreed. We will reduce the maximum thickness of walls to be exempted from GFA from 300 mm to 150 mm.

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	The maximum thickness of non-structural prefabricated external walls to be exempted from GFA and site coverage calculations should be reduced, the magnitude of which should take into account the technical advancement in the production of prefabricated walls as well as the existing building safety standard. (paragraph 4.3.2.3)	
16	**Green Features – Mail Delivery Rooms** To do away with the GFA concessions for mail delivery room and it should not be classified as a green feature in the Joint Practice Notes. (paragraph 4.3.2.4)	Agreed. Mail delivery rooms and miniature logistic service rooms will no longer be exempted from GFA calculation.
17	**Green Features – Wider Common Corridors** Not to grant GFA concessions for wider common corridors unless natural ventilation is provided for. (paragraph 4.3.2.5)	Agreed. Wider common lift lobbies and corridors without natural ventilation will no longer be exempted from GFA calculation. The existing window opening requirements will be refined (to require natural ventilation by windows facing open air and of aggregate area not less than 5% of floor space of the lobby/corridor) in order to enhance natural ventilation to common lift lobbies and corridors.
18	**Amenity Features – Recreational Facilities** To reduce the level of GFA concessions for recreational facilities and clubhouse, especially for sites with higher domestic GFA.	Agreed. We will adopt a sliding scale for exemption of residential recreational facilities (including clubhouses) from GFA calculation based on the total domestic GFA of the development as follows –

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	(paragraph 4.3.3.1)	– Not greater than 25,000m^2 : 5.0 %; – 25,001~50,000m^2 : 4.5% or 1,250m^2, whichever is greater; – 50,001~ 75,000m^2 : 4.0% or 2,250m^2, whichever is greater; – 75,001~100,000m^2 : 3.5% or 3,000m^2, whichever is greater; – 100,001~125,000m^2 : 3.0% or 3,500m^2, whichever is greater; – exceeding 125,000m^2 : 2.5% or 3,750m^2, whichever is greater. Besides, we will require void spaces over entrance foyer, covered walkways and areas for accommodating building services (such as swimming pool filtration plant rooms) which are solely serving the residential recreational facilities to be included under the above caps.
19	**Amenity Features – Management Facilities** To review the level of GFA concessions for counter, kiosk, office store, guard room and lavatory for watchman. (paragraph 4.3.3.2)	We will limit GFA concessions for management facilities to ensure they will not be excessive in size – – for non-domestic buildings, the amount of GFA to be exempted should not exceed 0.2% of the total non-domestic GFA subject to a maximum of 120 m^2; and – for domestic buildings, the amount of GFA to be exempted should not exceed 0.2% of total GFA or 5 m^2 for every 50 flats, whichever is smaller.
20	**Car Parks – Review of Hong Kong Planning Standards and Guidelines** To review and update the Hong Kong Planning Standards and Guidelines (HKPSG) on the provision of car parks having regard to factors	We agree that car parks are one of the major contributor to building bulk and height arisen from GFA concessions and warrant a critical review. The Transport Department (TD) has been conducting a consultancy study to review the guidelines on car parking provision for private residential developments in the HKPSG. When

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	including but not limited to: (1) accessibility to mass transport systems (e.g. proximity to MTR stations) and other means of public transport in the vicinity of the building; (2) traffic management issues (e.g. illegal parking, traffic flow data, etc); (3) realistic estimate of demand for car parking spaces with reference to the targeted market segment of the building, and any other relevant factors, to allow for flexibility. (paragraph 4.3.4.1)	reviewing the guidelines, the TD will take the Council's recommendations into account. The study is expected to complete by end 2010. Subject to the Study's findings, the relevant part of the HKPSG in relation to car parking requirements would be revised as appropriate.
21	**Car Parks – Level of Concessions and Underground Car Parks** To reduce the level of GFA concessions for car parks in general and promote underground car parks where technically feasible through provisions of relatively higher level of GFA concession as compared with that for their above-ground counterparts. Other factors such as energy efficiency in providing lighting and air ventilation to underground car parks should be taken into account in the design of the underground car parks. (paragraph 4.3.4.2)	100% GFA concessions will only be granted for underground car parks, while concessions for above-ground car parks will be granted at 50%, unless it is proven with sufficient evidence that it is technically infeasible (e.g. sites above railway routes or underground utilities) or totally unnecessary to construct an underground car park in a specific site. In addition, to complement Government's policy to promote the wider use of electric vehicles (EV), we will make it a requirement that only those parking spaces which are EV-charging enabling[4] will be eligible for GFA concessions. It should also be noted that under item 6 above, regarding the reduction of maximum site coverage at podium level, when implemented, will have an indirect effect of encouraging the provision of car park on basement floors.

[4] Specifically, parking spaces are required to put in place at the building construction stage the infrastructure and conditions, including electrical wiring and provision of sufficient power supply, which are necessary for future installation of electric vehicle standard charging facilities.

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22	**Public passage or road widening** The current policy and practice of incentivising such dedication may be maintained. (paragraph 4.3.5.1)	We note the Council's comments. Applications for bonus GFA are carefully scrutinised and such GFA will only be granted with the support from all concerned departments including the BD, PlanD, Lands Department (LandsD), TD, Highways Department. We will continue with such prudent practice and will enhance the same if necessary.
23	**Categorisation of Different Features** To review the categorisation of the mandatory, green and amenity features regularly with a view to timely identify what features are essential and should be mandatorily required with minimum standard specified and what features are merely desirable and whether their provision should continue to be incentivised with GFA concessions having regard to desirability in terms of improving the environment, benefits to the residents, whether they are value-adding, market trends, and any other relevant factors. (paragraph 4.3.6.1)	The BD regularly reviews the definition of essential and mandatory features e.g. access facilities for telecommunications and broadcasting services and refuse storage and material recovery rooms to promote waste recycling were included as mandatory features in 2000 and 2008 respectively. The BD will continue the review regularly as suggested in the report. In this particular exercise, based on the Council's broad directions, we have reviewed each and every of the building design features that are given GFA concessions. We agree with the Council to maintain status quo for mandatory features, and reduce/remove GFA concessions for some of the green/amenity features. We have tackled car parks separately (please refer to items 20 and 21 above). Furthermore, apart from bonus GFA, car parks, mandatory features, design features benefiting the neighbourhood (such as sky garden and podium garden), essential plant rooms and voids in certain non-domestic developments, all the other features will be subject to an overall cap on the GFA concessions that may be granted (please refer to item 24 below). A full account of our proposals on GFA concessions is at the **Appendix**.

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24	**Capping GFA Concessions** To impose an overall cap on the total GFA concessions to be granted and taking into account the individual caps in place for different features, and the actual experience gained upon implementation of the requirement, to consider, in the longer run, adopting a more performance-based and site-specific approach in determining the overall cap. For example, the Government may consider the feasibility of prescribing different levels of the overall cap corresponding to the overall environmental performance of the building by reference to certain benchmarks (e.g. BEAM Plus rating[5]), i.e. the higher the rating, the higher the overall cap. (paragraph 4.3.7.1)	We will impose an overall cap of 10% for both domestic and non-domestic buildings on the GFA concessions for all green and amenity features (excluding bonus GFA, car parks, mandatory features, sky gardens, podium gardens, essential plant rooms and voids in certain non-domestic developments) in new building developments. We will, in collaboration with the Hong Kong Green Building Council (HKGBC), further explore the adjustment mechanism to the overall cap based on the environmental performance of buildings using assessment tools such as the BEAM Plus Assessment conferred by the HKGBC as a longer term objective.
25	**Administration of GFA Concessions – Communication Channel with Industry** To establish a channel through which the Building Authority could regularly communicate with the industry, professional bodies, academia, etc. with a view to keeping abreast of the latest	Since 2009, the BD has established a quarterly discussion forum under the Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers Committee to exchange information and share experience on topical issues (e.g. new technologies, materials and industrial practice as well as government procedures/practice and application of the Buildings Ordinance relating to the building industry) with building professionals. We

[5] The new version of BEAM Plus, recognised by the Hong Kong Green Building Council, helps owners to make use of one assessment methodology with all good practices in planning, design, construction, management, operation and maintenance of buildings, and is aligned with relevant local and international standards to demonstrate the overall qualities of a building, be it a new or redevelopment building or one that is in use.

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	development in technology, building design, and the property market so that these factors can be taken into account in the review of the administration of GFA concessions. (paragraph 4.3.8.2)	will continue to keep abreast of the latest development of the building industry and review the policies as necessary.
26	**Dissemination of Information on GFA Concessions** To require the disclosure of information on GFA concessions granted for all features in sale brochures of new developments in layman-friendly ways. (paragraph 4.3.8.3)	To enhance the transparency of information on area and pricing, the Transport and Housing Bureau (THB) standardised the definition of "saleable area" and the format of the price lists for first-hand uncompleted private residential properties in October 2008. The standardised price list template provides breakdown of the GFA of a unit in terms of the standardised "saleable area" (with further breakdown into the areas for balcony, utility platform (if any)), bay window, air conditioning plant room, apportioned share of common areas, and other areas of the unit such as roof and flat roof. Also, it provides information on flat price per square foot/metre in "saleable area" of individual flats. To enhance transparency of information on GFA concessions in building developments, the BD has issued a revised practice note requiring detailed breakdowns of all GFA concessions granted in new building developments to be shown on final building plans for projects in respect of which an application for occupation permit is submitted on or after 1 September 2010. The summary of such information will also be published on the BD's website after issuance of occupation permits for the developments. But information on the GFA concessions so required is on an aggregate basis (as opposed to a flat by flat basis) and can only be disseminated upon completion of

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		the building (i.e. after the occupation permit is issued). To further enhance the transparency of property information in the sales brochures of uncompleted first-hand private residential properties, the THB will require inclusion of the following information in the sales brochures of uncompleted first-hand private residential development which the LandsD has granted pre-sale consent – (a) breakdown of GFA concessions obtained for all features; (b) rating of BEAM Plus Assessment conferred by the HKGBC; and (c) estimated energy consumption. The THB will continue to work with the Consumer Council, Real Estate Developers Association and Estate Agents Authority to enhance public awareness on area information, including the standardised definition of "saleable area".
27	**Review of Administration of GFA Concessions** To review the administration of GFA concessions from time to time with a view to adopting a holistic, performance-based and site-specific approach taking into account different aspects covering urban planning, site configuration, technological advancement, environmental performance of the concerned building features and designs (e.g. building separation, building	The BD will continue the review regularly as suggested in the Council's report. As mentioned in item 24 above, we will, in collaboration with the HKGBC, further explore the adjustment mechanism to the overall cap based on the environmental performance of buildings using assessment tools such as the BEAM Plus Assessment conferred by the HKGBC.

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	setback, greenery coverage, energy efficient features, building height, etc), overall environmental performance of the building as a whole, and availability of other appropriate incentive schemes, to the extent possible. (paragraph 4.3.8.4)	
28	**Projecting Windows, commonly known as "Bay Windows"** To review the desirability of bay windows and the current policy and practice of their exclusion from being counted in plot ratio. The review should be in the context of whether bay windows would improve the overall environmental performance of buildings and if affirmative, to what extent. (paragraph 4.3.9.1)	Subject to compliance with certain criteria, a projecting window is a projection that does not fall within the definition of GFA. It is not treated as a green or amenity feature attaching GFA concessions. The BD will impose a new requirement to reduce the maximum extent of projection (i.e. depth of bay windows) from 500 mm to 100 mm from the outer face of external wall. The BD has also commissioned a consultancy study entitled "Design and Construction Requirements for Residential Buildings for Energy Efficiency", which would help us better understand the extent to which projecting windows could improve the overall environmental performance of a residential building.
(c)	**Building Energy Efficiency**	
29	**Building Energy Efficiency – Review of Building Energy Codes** To periodically review and enhance the subsequent statutory level of energy efficiency required under the mandatory Building Energy Codes to align with the swift advancement of	The Government has been reviewing the Building Energy Codes (BECs) from time to time, having regard to the latest technological development. Mandatory compliance with the BECs will be required under the Buildings Energy Efficiency Bill which is being scrutinised by the Legislative Council. Periodic review of the BECs will continue to be conducted.

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	related technology. (paragraph 4.4.1)	In view of latest technological development, we consider that there might be room to further tighten the standards for building services installations, in particular lighting installations, in the coming few years. We will actively pursue the enhancement of energy efficiency standard of the BECs taking account of relevant latest developments.
30	**Building Energy Efficiency – Existing Buildings** To step up the provision of technical and/or financial assistance for existing building owners to encourage them to retrofit their buildings with energy efficient features/installations. (paragraph 4.4.1)	The Government launched the Buildings Energy Efficiency Funding Schemes in April 2009 with funding from the Environment and Conservation Fund. The funding schemes provide subsidies to incentivise building owners to conduct energy-cum-carbon audits and energy efficiency projects for their buildings. The Government has already been providing technical advice through guidelines or voluntary schemes etc. regarding energy efficiency features/installations for buildings, e.g. energy efficiency lighting options such as light emitting diodes (LED), water-cooled air conditioning systems etc. The Government will continue to step up efforts in this connection.
31	**Building Energy Efficiency – Benchmarking and Accreditation** To further promote the use of benchmarking and accreditation system (e.g. BEAM Plus or other assessment method to be developed by the HKGBC covering different building environmental performance) for building energy efficiency and lifecycle building energy content to promote energy efficiency in both building's	The Government supports the promotion of benchmarking and accreditation systems. We recognise that benchmarking and accreditation systems such as BEAM Plus Assessment conferred by the HKGBC are effective means to promote sustainable building design and construction. To lead by example, we have already promulgated vide a joint technical circular by the DEVB and Environment Bureau (ENB) that new government buildings with construction floor area exceeding 10,000 m^2 would achieve at least the second highest rating in a recognised assessment system such as

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	operation phase and construction phase. This may also be supplemented by greenhouse gas benchmarking. The accreditation of buildings may also be published online for public's easy reference to raise awareness. (paragraph 4.4.2)	BEAM Plus Assessment conferred by the HKGBC. To give impetus to private sector buildings, we propose that as prerequisites to seek GFA concessions for non-mandatory features and green and amenity features, buildings should be subject to BEAM Plus Assessment conferred by the HKGBC and submit its estimated energy consumption for the common parts (for domestic developments) or for the entire building (for non-domestic developments). Such pieces of information should be disclosed to perspective buyers in sales brochure. After the issuance of occupation permit for the buildings, the BD will publicise such information on its website.
32	**Building Energy Efficiency – District Cooling System** To extensively implement district cooling system across Hong Kong where appropriate. (paragraph 4.4.3)	Plans are underway to set up a district cooling system (DCS) for the Kai Tak Development (KTD). The Government would actively explore the feasibility of developing similar systems in other sites where appropriate and seriously consider mandating property developments at KTD to use DCS.
33	**Building Energy Efficiency – Additional Building Design Guidelines** To consider providing additional building design guidelines to provide clear directions for the industry in the design of energy efficient buildings. (paragraph 4.4.4)	The Government has been promoting the application of the BECs, which stipulates the minimum energy performance standards of most energy-consuming installations of a building, including lighting, air-conditioning, electrical and lift and escalator installations. Building designers have been encouraged to adopt the BECs. The Government will review the BECs from time to time, having regard to technological advancement. The Government will also take advantage of new opportunities arising from public projects in new development areas (e.g. Kai Tak),

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		to explore implementing projects that could achieve an even higher energy efficiency standards. The BD has commissioned a consultancy study entitled "Design and Construction Requirements for Residential Buildings for Energy Efficiency". The study will explore the possibility for formulating mandatory standards and requirements for energy efficient building design and construction in residential buildings. The Department aims to complete the consultancy study in 2011-12.
34	**Building Energy Efficiency – Role of Government** To take a lead by setting a target in implementing energy efficiency initiatives in public buildings and promulgating the timeframe for achieving the target to provide a role model to showcase energy efficient building design and practices for the private sector. (paragraph 4.4.4)	The Government is committed to leading by example in promoting green buildings. In April 2009, the DEVB and ENB jointly promulgated a comprehensive target-based environmental performance framework for new and existing Government buildings, which sets targets in various environmental aspects, such as energy efficiency, renewable energy, indoor air quality and greenhouse gas emissions. New and existing Government buildings should adopt the framework set out unless it is technically or functionally not feasible, or economically excessive as compared with the overall project costs. For example, all existing Government buildings should continue with its energy saving efforts, with a view to achieving a 5% saving on the total electricity consumption from 2009-10 to 2013-14 after discounting activity changes. Regular reviews will be conducted to update the targets in the light of technical advancement. To step up our efforts, $130 million was allocated in the 2009-10 Budget to carry out works to enhance energy efficiency of

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		government buildings and public facilities. Upon completion of the projects, it is estimated that there would be an annual saving of electricity cost of about $12 million. We are also implementing a package of $450 million minor works projects to improve the green performance of government buildings. Of the total $450 million, $206.5 million would be used for implementing energy-saving projects and retrofitting of plumbing appurtenance with water saving devices in government buildings and schools. Upon completion of these initiatives, it is estimated that there would be annual saving of electricity cost of about $19.3 million.
35	**Building Energy Efficiency – Review of Existing Standards and Regulations** To consider reviewing the relevant regulations in terms of architectural design and building fabrication for reducing energy consumption in buildings and the scope of application of the Overall Thermal Transfer Value (OTTV) in buildings with a view to extending its application to residential buildings. (paragraph 4.4.5)	To save electricity consumption in air-conditioning for the commercial buildings and hotels, the Building (Energy Efficiency) Regulation (B(EE)R) (Cap. 123 sub. leg. M) requires the external walls and roofs of these buildings to be designed and constructed with a suitable OTTV which is stipulated in the Code of Practice for OTTV in Buildings. The BD has recently reviewed the current OTTV standards and will tighten up the OTTV standard by 20% (from 30 w/m^2 to 24 w/m^2 for building towers and from 70 w/m^2 to 56 w/m^2 for podiums). Preliminary assessment shows that the 20% reduction could achieve 2.4 to 4.4 % energy saving depending on the floor layout of the building and type of air conditioning system. As mentioned in item 33 above, the BD has commissioned a consultancy study entitled “Design and Construction Requirements for Residential Buildings for Energy Efficiency” to examine how to enhance energy efficient building design and construction in residential buildings.

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36	**Building Energy Efficiency – Interface with Sustainable Building Design** To consider issues such as building separation, building setback and urban greenery in concert with energy efficiency measures for reducing the overall energy demand in buildings for energy-driven ventilation, air-conditioning, artificial lighting, etc. (paragraph 4.4.6)	Please see items 1, 3, 7 and 35 above.
37	**Building Energy Efficiency – Public Education** To further enhance the promotion and education for the public on green lifestyles with a view to "amplifying" the maximum attainable energy efficiency of the building hardware. (paragraph 4.4.7)	The Government will continue to enhance its efforts on publicity and education for the public on green lifestyles.
(d)	**Built Environment from a Wider Perspective**	
38	**Role of Government – Enhanced Co-ordination** To enhance co-ordination between the relevant bureaux/departments concerning the built environment so that the whole process from planning, provision of infrastructures, the sale of	The Government will continue to enhance its coordination between bureaux and departments. For example, the BD, LandsD and PlanD issued Joint Practice Notes 3 and 4 to streamline the processing of land and building developments and to set out the development control parameters on which the three departments adopted similar practices broadly.

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	land, up to design, development and operation of buildings would incorporate sustainability considerations. (paragraph 4.5.1.2)	
39	**Role of Government – Partnership with Stakeholders** To forge stronger partnership with other stakeholders, including building professionals of different disciplines, developers, non-government organisations and the public to take forward future initiatives for achieving a quality and sustainable built environment. (paragraph 4.5.1.3)	The success in promoting green buildings hinges largely on public and community support, including the professional sector. The HKGBC was established as a result of collaboration with professional sector. The HKGBC will engage the community, industry and the Government in formulating green building practices and promoting their wider adoption, aspiring for quality and sustainability at every stage of the building life cycle. The HKGBC promulgated on 1 April 2010 a distinctive green building assessment method for Hong Kong (BEAM Plus). As mentioned in item 25 above, since 2009, the BD has established a quarterly discussion forum under Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers Committee to exchange views with building professionals on a regular basis.
40	**Role of Government – Being a Role Model** To be a role model in adopting sustainable building design and energy efficient features in public funded buildings and promote such design and features to other private developments. (paragraph 4.5.1.4)	As mentioned in items 31 and 34 above, Government buildings will follow the framework as set out in April 2009 in adopting green building design and energy efficient features. All new Government buildings with construction floor areas of more than 10,000 m^2 will aim to obtain the second highest grade or above under the assessment systems recognised locally or internationally.

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41	**Role of Government – Promotion of Accreditation Systems** To introduce and/or promote the use of accreditation system(s) as a benchmark for measuring the environmental performance of the building as a whole and various building designs, features and installations. (paragraph 4.5.1.4)	Please see item 31 above.
42	**Regulatory Review – Building Controls** To further enhance the review and updating of the regulatory regime and the Buildings Department's practice notes with reference to the latest development in the world, and to keep abreast of community aspirations on the built environment in view of changes to building design, technology and sustainability concerns. The following public views may be useful for the Government's consideration on where to start the process: (1) to review some of the BD's practice notes to encourage/promote quality building design (e.g. for flexible approach to protruding and recessive parts of building in terms of GFA and site coverage calculation); (2) the OTTV be updated and the scope of OTTV requirements be extended; and (3) to review the	The BD will continue to review and update the regulations as mentioned above. Regarding (1) (to review the BD's practice notes to encourage / promote quality building design), the BD has conducted an internal review on the acceptance criteria for areas under overhangs in terms of GFA calculations. The Department will consult the industry and implement the proposal shortly. Regarding (2) & (3) (to review OTTV and 100% maximum site coverage requirements), please see items 35 and 6 above respectively.

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	current maximum allowable site coverage of 100 percent for the non-domestic part of buildings up to a height of 15 metres. (paragraph 4.5.2.1)	
43	**Regulatory Review – Benchmarking** To introduce building design standards where appropriate e.g. AVA, building lifecycle carbon audit, etc for benchmarking. (paragraph 4.5.2.2)	The PlanD has commissioned the Urban Climatic Map Study to prepare the Urban Climatic Planning Recommendation Map and to refine the AVA system. Subject to the study findings, a more scientific and objective basis would be provided for assessing the impacts of development proposals with respect to urban climatic and air ventilation considerations.
44	**Regulatory Review – Accreditation System** To promote the use of accreditation system(s) (e.g. BEAM Plus) to distinguish sustainable buildings (e.g. the Government would only rent buildings that have been accredited). (paragraph 4.5.2.3)	Please see item 31 above.
45	**Planning Issues – Planning Considerations** To consider incorporating more scientific considerations in the planning process, e.g. collection and use of scientific data such as the Urban Climatic Map, AVA results, etc with the aid of 3-D modeling in prescribing site/district-specific development/design	The PlanD has been undertaking AVA, VIA and 3-D modelling as appropriate in planning an area. While these technical assessments themselves involve systematic data collection and objective analysis, they may inevitably involve professional judgment and may not be entirely "scientific". And the planning process itself is an art of balancing among various considerations, including community value. The Technical Circular on AVA jointly issued by the then Housing,

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	parameters where appropriate. Considering that conducting AVA and visual impact assessments (VIA) for small sites may not be useful and cost-effective, AVA and VIA may be conducted on a case-by-case basis. (paragraph 4.5.3.3)	Planning and Lands Bureau and the then Environment, Transport and Works Bureau in 2006 has stipulated categories of major government projects under which AVA needs to be undertaken during the planning stage. The Town Planning Board (TPB) Guidelines on Submission of Visual Impact Assessment to the TPB was endorsed by the TPB and promulgated for public information in July 2010. The requirements for AVA and VIA are determined with reference to the likely project impacts.
46	**Planning Issues – Urban Design Plans** To adopt an urban design plan to provide for detailed macro-level planning e.g. building density distribution, ridgelines, harbour-front, infrastructure, conservation, district character, etc down to micro-level planning such as harmony between built and natural environments (e.g. preservation of breezeways, natural light penetration, natural greenery, etc), streetscape, human scale considerations, and so on. (paragraph 4.5.3.4)	Currently, the Urban Design Guidelines as Chapter 11 of the HKPSG have provided a set of qualitative guidelines on planning with the key urban design elements at both strategic and local planning levels. Urban design frameworks have been formulated in strategic planning frameworks such as Metroplan and the Harbour Plan Review as well as individual planning studies. In reviewing the Outline Zoning Plans and taking forward individual development projects, development parameters to accord with the urban design principles have also been applied and incorporated as appropriate. It is envisaged that opportunity could be taken to suggest urban design elements in the context of discussion of the 4Rs (i.e. Redevelopment, Rehabillitation, pReservation and Revitalisation) at the District Urban Renewal Forums proposed under the Urban Renewal Strategy Review.

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47	**Planning Issues – Greening Master Plans** To expedite the use of Greening Master Plan for long-term greening strategy and measures to be incorporated in the planning process. (paragraph 4.5.3.5)	Please see item 12 above.
48	**Planning Issues – Review of HKPSG** To review and update the HKPSG, with reference to the recommendations herein contained, in particular the provision of car parks, with due regard to overseas best practices, latest advances in technology, the local context, etc. (paragraph 4.5.3.6)	The HKPSG will be revised and updated from time to time to incorporate latest requirements. Please also see item 20 above.
49	**Information and Transparency – GFA Concessions** To require that information relating to GFA concessions granted for various features be provided in sales brochures of new developments in layman-friendly ways. (paragraph 4.5.4.2)	Please see item 26 above.
50	**Information and Transparency – Allotted Common Area** Besides a breakdown of the constituents of	To enhance the transparency of information on area and pricing, the THB standardised the definition of “saleable area” and the format of the price lists for first-hand uncompleted private residential properties

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	"saleable area", to make available the "gross floor area" of a flat unit with a breakdown of the apportioned share of common area, so that information relating to the other areas not within the flat unit but allotted thereto will be shown in an easily understandable way. (paragraph 4.5.4.3)	in October 2008. The standardised price list template provides breakdown of the GFA of a unit in terms of the standardised "saleable area" (with further breakdown into the areas for balcony, utility platform (if any)), bay window, air conditioning plant room, apportioned share of common areas, and other areas of the unit such as roof and flat roof. Also, it provides information on flat price per square foot/metre in "saleable area" of individual flats. The THB will require developers to provide further breakdown on apportioned share of common area, taking into account the professional input from the relevant professional body.
51	**Education** To take specific actions to promote sustainable developments in different aspects, especially energy consumption, transportation modes, waste recycling, etc. with a view to changing the public's habit toward a more sustainable lifestyle. (paragraph 4.5.5.1)	The Government has been collaborating with different sectors to pursue sustainable development in Hong Kong. The Government will continue to initiate and facilitate the integration of sustainable development into new Government initiatives and programmes and generally in the community.

Development Bureau

October 2010

Appendix to Annex B

New Arrangement for Control on Gross Floor Area (GFA) Concessions

Features	Existing Exemption Criteria	New Arrangement
Overall Cap		
Overall Cap for Green and Amenity Features	N/A	• To impose an overall cap on the total GFA concessions (excluding bonus GFA, GFA concessions for car parks, communal sky/podium gardens, mandatory features, essential plant rooms, as well as voids of shopping mall, cinema, auditorium, etc, in non-domestic developments) in new building developments • **Cap at 10.0% (for both domestic and non-domestic developments)** • Overall cap to cover the following features – – green features (including balconies, utility platforms, wider common corridors and lift lobbies, non-structural prefabricated external walls, wing walls, wind catchers and funnels, noise barriers, and acoustic fins) – amenity features (including residential recreational facilities, horizontal screens of covered walkways/ trellis, management facilities, larger lift shaft areas, voids in duplex flats/houses, pipe ducts/air ducts/chimney shafts, non-mandatory plant rooms, plant rooms and covered floor spaces to accommodate energy efficient or environmentally friendly systems/features,

Features	Existing Exemption Criteria	New Arrangement
		and voids for entrances in non-domestic buildings) ● Pre-requisites for granting GFA concessions for non-mandatory features and green and amenity features – – compliance with the Sustainable Building Design Guidelines concerning building separation, building setback and site coverage of greenery, where applicable – submission of the estimated energy performance / consumption for the common parts (for domestic developments) or for the entire building (for non-domestic developments), and the provisional BEAM Plus Assessment conferred by the Hong Kong Green Building Council (HKGBC) for the building (but without mandating the grading obtained) ● To require disclosure of the following information, where applicable, in the sales brochure of the development concerned as a condition for granting of GFA concessions for non-mandatory features such as communal podium and sky gardens, green and amenity features and to publicise such information on the BD's website after the issuance of occupation permit for the development – – the estimated energy performance / consumption and the provisional BEAM Plus Assessment conferred by the HKGBC – the formal BEAM Plus Assessment conferred by the HKGBC within 3 months of issue of occupation permit by the BD (which should also be submitted to the BD)

Features	Existing Exemption Criteria	New Arrangement
Cap on Selected Green Features	● Covering balconies, wider common corridors and lift lobbies, sunshades, acoustic fins, wing walls, wind catchers and funnels, and mail delivery room with mailboxes ● Cap at 8% of total permitted GFA	● To do away ● One overall cap will control building bulk and provide flexibility
Green Features <u>(Subject to Overall Cap)</u>		
(1) Balconies	● GFA concession = 4% of usable floor space of the unit (minimum = 2 m^2) ● Maximum GFA concession per flat unit = 5 m^2 ● Minimum balcony size = 2 m^2	● To exempt only 50% of balcony area ● GFA concession = 2.5% usable floor space of the unit (minimum = 1 m^2) ● Maximum GFA concession per flat unit = 3 m^2 ● Minimum balcony size = 2 m^2 ● No restriction on subsequent merging of flat units[1] **Example –** A flat unit with usable floor space of 50 m^2 will be eligible for a GFA concession of 1.25 m^2 for its balcony (total balcony size = 2.5 m^2), whereas under the existing system, it is eligible for a balcony of 2 m^2 which could be fully exempted from GFA calculation.

[1] The GFA concession for balcony/utility platform is currently granted on a flat unit basis, i.e. minimum/maximum balcony area of 2/5 m^2 and maximum utility platform area of 1.5 m^2 per residential flat. Therefore, currently without control on the overall cap for GFA concessions, merging of units with balconies/utility platforms might be considered as a breach of the exemption criteria (e.g. the total area of balconies/utility platforms per "merged unit" exceeds 5 m^2/1.5 m^2). Under the new arrangement, balconies and utility platforms will be subject to the overall cap, hence the restriction may be relaxed.

Features	Existing Exemption Criteria	New Arrangement
(2) Utility Platforms	• Maximum GFA concession = 1.5 m^2	• To exempt only 50% of utility platform area • Maximum GFA concession = 0.75 m^2 • No restriction on subsequent merging of flat units[1]
(3) Mail Rooms/Mail Delivery Rooms with mail boxes	• 16 m^2 for a block size of 320 domestic flats • 60 m^2 for non-domestic buildings	• To do away • No GFA concessions
(4) Wider Common Corridors and Lift Lobbies	• Without natural ventilation – width of corridor[2] between 1,200 mm and 1,800 mm (i.e. exemption ≤ 0.6 m) and width of lift lobby between 1,650 mm and 2,200 mm (i.e. exemption ≤ 0.55 m) may be exempted • With natural ventilation – width of corridor[2] between 1,200 mm and 2,200 mm (i.e. exemption ≤ 1m) and width of lift lobby between 1,650 mm and 2,500 mm (i.e. exemption ≤ 0.85 m) may be exempted • Only applicable to floors other than the main entrance hall of residential buildings	• To exempt only if natural ventilation is provided • To follow existing criteria if with natural ventilation • Natural ventilation should be provided by windows facing open air and of aggregate area ≥ 5% of floor space of the common corridor/lobby • Only applicable to floors other than the main entrance hall of residential buildings **Example –** A common corridor with natural ventilation with a width of 2,000 mm and a length of 10 m will be eligible for a GFA concession of 8 m^2 [= (2,000 – 1,200) mm x 10 m]

[2] The common widths for corridors and lift lobbies in modern buildings for the provision of means of escape are 1,200 mm and 1,650 mm respectively. GFA concessions would only be granted for wider common corridors and lift lobbies over the common width.

Features	Existing Exemption Criteria	New Arrangement
(5) Non-structural Prefabricated External Walls	● ≤ 300 mm thick ● require structural justifications if ≥ 150 mm thick (practice under the BD's internal guidelines) ● If a door opening is formed for a balcony or a utility platform, the portion of the wall formed with the door opening is not exempted (practice under the BD's internal guidelines)	● ≤ 150 mm thick ● Portion of wall ≥ 150 mm thick has to account for GFA and site coverage ● To publicise the BD's internal guidelines in Joint Practice Notes (if a door opening is formed for a balcony or a utility platform, the portion of the wall formed with such opening is not exempted)
(6) Wing Walls, Wind Catchers and Funnels	● Wing wall projection ≤ 1.5 m ● Larger wing wall requires justification ● Wing wall should be non-load bearing other than its own weight and wind pressure on its surface ● Exempted size for wind catcher and funnel to be considered on a case-by-case basis ● Features should promote natural ventilation of the building	● To require quantitative justifications on energy saving / enhancement of ventilation ● Status quo otherwise
(7) Noise Barriers	● Exempted size to be considered on a case-by-case basis ● Not for commercial purposes ● Maybe a stand-alone wall, with or without projection, and located away from the main tower, or cantilevered from external walls	● To require quantitative justifications on noise reduction ● Status quo otherwise

Features	Existing Exemption Criteria	New Arrangement
	of the podium	
(8) Acoustic Fins	● Projection ≤ 1.5 m ● Larger projection requires justification ● Non-load bearing other than its own weight and wind pressure on its surface	● To require quantitative justifications on noise reduction ● Status quo otherwise
Amenity Features <u>(Subject to Overall Cap)</u>		
(1) Residential Recreational Facilities (e.g. clubhouses)	● ≤ 5% of domestic GFA ● Facilities that are commonly accepted – – active facilities – swimming pools, multi-purpose ball / volleyball / squash courts, basketball / football courts, tennis / badminton courts, children play areas, games rooms, indoor golf rooms, table-tennis rooms, fitness rooms, gymnasiums, weight training / aerobic / exercise rooms, bowling alleys, skating rinks – passive facilities – sitting areas / lounges, billiard rooms, sauna / spa facilities, reading rooms / study rooms / libraries, function room, computer / video game rooms, music / karaoke rooms ● Ancillary facilities which may be currently	● A cap with sliding scale as follows – – ≤25,000m^2 : 5% of total domestic GFA – 25,001~50,000m^2 : 4.5%/1,250m^2 (whichever is greater) – 50,001~75,000m^2 : 4.0%/2,250m^2 (whichever is greater) – 75,001~100,000m^2 : 3.5%/3,000m^2 (whichever is greater) – 100,001~125,000m^2 : 3.0%/3,500m^2 (whichever is greater) – >125,000m^2 : 2.5%/3,750m^2 (whichever is greater) ● All voids, plant rooms (including swimming pool filtration rooms), covered walkways, etc serving solely for recreational facilities will be subject to the cap of the recreational facilities based on the above sliding scale ● Status quo otherwise **Example –** A development with domestic GFA of 90,000 m^2 (equivalent to about 3 towers with 45 storeys) will be eligible for a

Features	Existing Exemption Criteria	New Arrangement
	included, depending on the size and relationship with main functions – – clubhouse management offices / staff rooms, snack bars and pantries, first-aid rooms, pantries and mini-bars (not exceeding 10 m^2), kitchens (not exceeding 15 m^2) for sites without any commercial floor space ● Substantial luxury clubs with restaurants and other facilities obviously meant for exclusive memberships and commercial takings are not acceptable ● For exclusive use by owners and residents and their visitors	clubhouse with an area of 3,150 m^2 [= 90,000 m^2 x 3.5%]
(2) Horizontal Screens of Covered Walkways, Trellis	● Width ≤ 2 m ● Situated in common area ● Population, size of development and design of the screens will be taken into consideration	Horizontal screens of covered walkways ● Status quo Trellis ● Not more than 5% of the roof area or 2 m^2, whichever is greater, subject to a maximum size of 20 m^2 ● Not applicable to small roof with area less than 4 m^2
(3) Management Facilities	● Situated in common area Domestic – ● 5m^2 for every 50 flats (practice under the BD's internal guideline)	● Situated in common area Domestic – ● To publicise the BD's internal guidelines with the following adjustment: 0.2% of total GFA or 5 m^2 for every

Features	Existing Exemption Criteria	New Arrangement
	Non-domestic – ● Not excessive in size	50 flats, whichever is smaller Non-domestic – ● 0.2% of total GFA or 120m^2, whichever is smaller **Example –** A residential block with 400 flat units (or one with total GFA of 20,000 m^2) will be eligible for GFA concession of 40 m^2 for management facilities
(4) Miniature Logistic Service Rooms (for residential buildings)	● 8 m^2 for a block size of 240 flats	● To do away ● No GFA concessions
(5) Larger Lift Shaft Areas	Lift car / lift shaft area – ● ≥ 1.82 m^2 / 4.12 m^2 (domestic) ● ≥ 2.1 m^2 / 4.4 m^2 (office/commercial) Exempted area allowed – ● Domestic : 3.5% of domestic GFA ● Non-domestic – – GFA < 10,000 m^2 : 3% of total GFA – GFA ≥ 10,000m^2: 2.5% of total GFA or maximum 300m^2, whichever is greater ● Require lift certification that the lift service	● Status quo

Features	Existing Exemption Criteria	New Arrangement
	to be provided is above the acceptable level of service in terms of handling capacity and waiting time and that there is adequate maneuvering space for the carrying out of maintenance works	
(6) Entrance Voids / Prestigious Entrances	● Genuine, not subject to misuse and based on individual merits	Domestic buildings – ● To do away ● No GFA concessions Non-domestic buildings – ● Status quo
(7) Voids in duplex flats / houses	● Voids should be located at the living room, dining room or entrance foyer ● Effective measures should be adopted to prevent possible abuse, e.g. up-stand beam design, large glazing facing the exterior, no adjoining structural wall or beam, etc. Duplex flats (practice under the BD's internal guidelines) ● Flat's usable floor space $\geq 150m^2$ ● Void $\leq$ 10% of usable floor space of the flat ● Maximum 2 levels of voids per building ● Maximum concession = 0.5% of total domestic GFA	● To publicise the BD's internal guidelines as practice note

Features	Existing Exemption Criteria	New Arrangement
	● Headroom ≤ 6.5m Houses (practice under the BD's internal guidelines) ● Flat's usable floor space ≥ 250 m^2 ● Void ≤ 5% of usable floor space of the flat ● Headroom ≤ 7.0m	
(8) Pipe Ducts/Air ducts/Chimney Shafts	Pipe ducts/air ducts ● Genuine & properly designed with adequate access for inspection and maintenance Chimney shafts ● Forming an integral part of a building	● Status quo
(9) Non-mandatory Plant Rooms (e.g. Air Handling Unit Rooms, Air Conditioning Plant Rooms)	● Subject to justifications based on individual merits ● Air handling unit rooms – ≤ 4% of total GFA ● Air conditioning plant rooms – ≤ 1% of total GFA	● Status quo
(10) Plant Rooms and Covered Floor	● Subject to justifications based on individual merits	● To require quantitative justifications on energy saving/benefit to the environment

Features	Existing Exemption Criteria	New Arrangement
Spaces (to accommodate energy efficient or environmentally friendly systems / features (such as rainwater / grey water recycling systems, etc.))		
Green and Amenity Features (NOT Subject to Overall Cap)		
(1) Communal Sky Gardens	● Maximum number of sky garden allowed – – 1 per 15 storeys for residential buildings – 1 per 20 storeys for non-residential buildings ● Greenery ≥ 25% ● Sky garden occupies ≥ 1/3 area of floor plate ● Other technical requirements – – accessible from common area only – clear height ≥ 4.5m – may combine with fire refuge floor subject to compliance with fire codes	● If fire refuge floor is required and not proposed at roof, the sky garden and fire refuge floor should be combined ● Not to provide sky garden immediately above or below podium garden unless with sufficient environmental justifications ● Increase greenery to ≥ 30% ● If there is concern on overall building height, GFA concession for sky garden may not be granted ● Status quo otherwise **Example –** A building with 55 storeys will be eligible for 2 refuge-floor-cum-sky-gardens and 1 independent sky garden

Features	Existing Exemption Criteria	New Arrangement
	– active recreational use is not permissible if located in an industrial building – for exclusive use by owners and residents and their visitors	
(2) Covered Gardens/ Play Areas/ Communal Podium Gardens	● Only for areas under footprint of tower ● For exclusive use by owners and residents and their visitors Residential buildings ● ≤ 5% of domestic GFA (practice under the BD's internal guidelines) ● Area is open in design Commercial/industrial buildings ● Clear headroom ≥ 4.5m ● For sitting out purpose only, i.e. active recreational use not permissible ● Greenery ≥ 25%	● To publicise BD's internal guidelines of 5% cap for residential buildings ● Status quo otherwise
(3) High Headroom / Voids in cinema, shopping arcades etc.	High headroom / voids in cinema and theatre balconies, banking halls and shopping arcades, in front of cocklofts over G/F in single staircase buildings, auditoria, sporting halls, school halls, religious institutions – ● genuine, not subject to misuse and based on individual merits	Void of shopping arcade – ● Cap at 10% of shopping arcade area Other voids for cinemas etc. apart from shopping arcade – ● Status quo

Features	Existing Exemption Criteria	New Arrangement
Mandatory Features <u>(NOT Subject to Overall Cap)</u>		
(1) Essential Plant Rooms[3] and Other Services	● Subject to justifications based on individual merits	● Status quo
(2) Fire Refuge Floors	● Follow the code of practice on means of escape ● Maybe combined with sky garden	● To be combined with sky gardens (if applicable) ● Status quo otherwise
(3) Public passage	● Exempt the dedicated area as required under lease/Outline Zoning Plan	● Status quo
Other Items <u>(NOT Subject to Overall Cap)</u>		
(1) Car Parking and Loading and Unloading areas (and associated ramps and facilities)	● For private car parks intended for the use of occupants and their bona fide visitors only ● Number of car-parking spaces is assessed and determined by the Transport Department (TD) which takes into account the location of the development, its scale and flat sizes, and proximity to rail transport, and makes reference to the Hong	● Design and layout to be justified based on site specific demand to the satisfaction of TD : if actual demand is lower than HKPSG, GFA concession to be based on actual demand ● 100% GFA concession for underground car parks; 50% for aboveground car parks ● 100% GFA concession could be granted for aboveground car parks if it is proven with sufficient evidence that it is

[3] Essential Plant Rooms includes plant rooms for fire service installations, refuse storage chambers, refuse storage and material recovery chambers / rooms, material recovery chambers, refuse chutes, refuse hopper rooms, telecommunications and broadcasting rooms, water tanks, electrical switch rooms, meter rooms, transformer rooms, generator rooms, fire services / potable / flushing water pump rooms, CO_2 rooms, hose reel closets, sewage treatment plant rooms, ducts for smoke extraction system, lift machine room.

Features	Existing Exemption Criteria	New Arrangement
	Kong Planning Standards and Guidelines (HKPSG) <u>Under HKPSG</u> <u>(i) Private residential housing</u> ● Standard rate = **R1xR2** ● **R1** (based on flat size) – <40m^2 : 0.067-0.1/flat 40-69.9m^2 : 0.11-0.17/flat 70-99.9m^2 : 0.28-0.42/flat 100-159.9m^2 : 0.56-0.83/flat >159.9m^2 : 1-1.5/flat ● **R2** (based on a 500 m radius of rail station) within 500 m radius : 0.85 outside 500 m radius : 1 <u>(ii) Retail</u> ● Zone 1 areas – 1 per 200~300 m^2 GFA ● Zone 2 and 3 areas – 1 per 40~50 m^2 GFA (first 2,000m^2) 1 per 150~200 m^2 GFA (above 2,000m^2) <u>(iii) Office</u> ● 1 per 150~200 m^2 GFA (first 15,000 m^2) ● 1 per 200~300 m^2 GFA (above 15,000 m^2) <u>(iv) Hotels</u> ● Main urban areas and new towns –	technically infeasible to construct an underground car park due to site constraints in a specific site or that the above-ground car parks will not pose adverse environmental or visual impact to its surrounding areas ● Examples of site constraints making underground car parks technically infeasible include – (a) sites located within scheduled area No.1 (Mid-levels) where the scale of bulk excavation is restricted to minimise adverse effects on the stability of the hillside; (b) sites located within scheduled areas No.2 (North-western NT) & 4 (Ma On Shan) where there may be large cavities within the marble bedrock and extensive underground construction works may encounter significant difficulties as a result of these ground conditions; (c) sites located within scheduled area No. 3 (railway protection areas) where underground construction works are restricted by the presence of railway structures and stations; or (d) sites located above major underground utilities or with other complex geotechnical constraints ● Criteria for accepting above-ground car parks as not posing adverse environmental or visual impact to its surrounding areas – (a) the site is located in a remote area and the proposed

Features	Existing Exemption Criteria	New Arrangement
	1 per 100 guest rooms; 0.5~1 per 200 m^2 GFA of conference and banquet facilities ● Other areas – Not less than 1 per 10 guest rooms; 2~5 per 200 m^2 GFA of conference and banquet facilities <u>(v) General Industrial Use (GIU)</u> ● Industrial Use – 1 per 1,000~1,200 m^2 GFA ● Industrial/Office Uses – 1 per 600~750 m^2 GFA <u>(vi) Business Use (OU(B))</u> ● Industrial or Industrial/Office Uses – 1 per 600~750 m^2 GFA ● Office Buildings – 1 per 150~200 m^2 GFA (first 15,000 m^2) 1 per 200~300 m^2 GFA (above 15,000 m^2) ● Business Buildings – 1 per 200~300 m^2 GFA	development with above-ground car parks are acceptable to the Planning Department; or (b) the site is located in density zone area 3 under the relevant outline zoning plan, the pedestrian wind environment for the proposed development with above-ground car parks is satisfactory as demonstrated by an air ventilation assessment conducted in accordance with the Technical Guide for Air Ventilation Assessment for Developments in Hong Kong, and visual impact studies confirm that the proposal will not cause adverse visual impact to its surrounding areas ● All parking spaces to be granted with concession are electric vehicle (EV) charging enabling, by putting in place the infrastructure and conditions, including electrical wiring and provision of sufficient power supply, for future installation of EV standard charging facilities ● As a longer term measure, we will also study the adoption of mechanical car-parking system to help reduce building bulk
(2) Projecting windows, commonly	Not accountable for GFA subject to compliance with the following acceptance criteria (but still accountable for site coverage) –	● ≤ 50% of area of external wall of the room where the window is located ● ≤ 100 mm projection from outer face of external wall ● ≥ 500 mm above finished floor level

Features	Existing Exemption Criteria	New Arrangement
known as "bay windows" [4]	• for domestic building only • one projecting window per room (only in living room, dining room or bedroom) • ≤ 50% of the total façade areas (of each elevation) • ≤ 500 mm projection from outer face of external wall • ≥ 500 mm above finished floor level • ≥ 500 mm from the underside of the finish ceiling	• One projecting window per room (only in living room, dining room or bedroom) • Not accountable for GFA or site coverage
(3) Sunshades and Reflectors[5]	• Projection ≤ 1.5m • Larger projection requires justification • Non-load bearing other than its own weight and wind pressure on its surface	• To require quantitative justifications for projection ≥ 0.5m • Status quo otherwise • Not accountable for GFA and site coverage subject to compliance with the stipulated criteria in the relevant regulation • To be deleted from the Joint Practice Note while the criteria to be set out in a separate practice note
(4) Horizontal area of staircases, lift	• considered on a case-by-case basis taking into account their locations and functions	• No GFA exemption if they also serve GFA accountable floors above or below • Applicable to floors accommodating features such as

[4] "Bay window" is an incorrect term as the projecting window allowed nowadays is not in full height but raised 500 mm from finished floor level. Projecting windows are projections from external wall and, subject to compliance with the size criteria, do not fall within definition of GFA.

[5] Sunshades and reflectors, subject to compliance with certain criteria under the Building (Energy Efficiency) Regulation (Cap. 123 sub. leg. M), are projections from external walls and will not fall within definition of GFA and need not count for plot ratio or site coverage.

Features	Existing Exemption Criteria	New Arrangement
shafts and vertical ducts passing through floor accepted as not being accountable for GFA		communal sky gardens, covered gardens/ play areas / communal podium gardens, essential plant rooms and other services, non-mandatory plant rooms, plants rooms and covered floor spaces (to accommodate energy efficient or environmentally friendly systems / features), as well as car parks and loading and unloading areas ● Status quo otherwise
(5) Back-of-house facilities of hotels	● ≤ 5% of hotel GFA ● Supporting facilities that are unique and integral to the normal operation of the hotel	● Status quo

Development Bureau
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Annex C

Implications of the Proposal

Financial and Civil Service Implications

As some of the GFA concessions granted under the current arrangements are subject to payment of land premium, the tightening up of such concessions may have a negative impact on land revenue, although the extent of which could not be assessed at this stage.

2. Additional resources for the implementation of the proposed measures set out in paragraphs 9 to 18 will be absorbed from within the existing provision of the concerned bureaux/departments. Regarding the longer term measures set out in paragraph 19, we will confirm the modus operandi for their implementation, and bid for additional resources through the established procedures if necessary.

Economic Implications

3. On economic implications, to the extent that the proposals will have a positive effect on the built environment, the value for the sites in the vicinity might be enhanced. Seen from the environmental perspective, the reduction in GFA would lower the energy consumption in buildings. A better living environment will also improve the health of people, thereby reducing healthcare expenditure and increasing productivity in the long term. On the other hand, the proposals could have some negative implications for the development potential of the scarce land resources in Hong Kong. As a very rough illustration, the DEVB has, based on several representative sample developments among the 97 domestic and non-domestic developments previously studied, estimated that the proposed cap on GFA for green and amenity features (not including those in relation to car parks) would reduce the total GFA produced from the site by 1.9% to 4.4%[1]. Depending on the actual design, the reduction in total GFA may affect the total usable space or number of flats in the development unless they are accounted for by features outside individual flats such as smaller club houses, lobbies or corridors.

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[1] The percentage of reduction in GFA is 4.4% for a sample high density domestic development, 2.7% for a medium density domestic development, 3.7% for a low density domestic development and 1.9% for a non-domestic development.

Environmental and Sustainability Implications

4. The proposals would help improve the environment, including air ventilation of the urban area and air quality, through reduction in building height and bulk and enhancement of greenery. A more harmonised built environment is conducive to social cohesion and sense of belonging in the community, and brings about long term benefits in terms of improved public health and quality of life. Overall, the new measures are conducive to the sustainability principles of seeking to find opportunities to enhance environmental quality and minimising the ecological footprint through improving consumption efficiency. They are in line with the strategic objectives set out in the Government's document entitled "A First Sustainable Development Strategy for Hong Kong" to promote sustainable urban planning and design practices that will ensure that Hong Kong will be an attractive and enjoyable place in which to live and work.

Other Implications

5. The proposals are in conformity with the Basic Law, including provisions concerning human rights and have no impacts on competition.