For discussion
on 27 July 2010

Legislative Council
Panel on Development

Green Buildings and Building Design to Foster a Quality and Sustainable Built Environment

PURPOSE

This paper provides an update on the Government's initiatives and efforts in promoting green buildings and seeks Members' views on the recommendations in the report of the Council for Sustainable Development (SDC) on the public engagement on Building Design to Foster a Quality and Sustainable Built Environment.

BACKGROUND

2. The built environment directly affects the quality of life and public health in Hong Kong. The Government has adopted a multi-pronged approach to promote green buildings. In a joint meeting of the Legislative Council (LegCo) Panel on Development and Panel on Environmental Affairs on 14 December 2009, we briefed Members (vide paper CB(1) 589/09-10(04)) on the Government's various initiatives and efforts on this front.

3. In particular, in view of the rising public concerns over the quality and sustainability of the built environment in Hong Kong, a public engagement process entitled "Building Design to Foster a Quality and Sustainable Built Environment" was launched by the SDC 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 to foster a quality and sustainable built environment. We briefed the Panel on Development on 19 December 2008 (vide paper CB(1)396/08-09(05)) that the Administration was planning to collaborate

with the SDC on the public engagement exercise, and sought the Panel's comments on 28 July 2009 during the public engagement period (vide paper CB(1)2342/08-09(01)). The exercise has now been completed and the SDC published its report last month.

4. The ensuing paragraphs provide an update on some of the Government's initiatives on the promotion of green buildings and highlight the recommendations in the SDC's report.

ENERGY EFFICIENCY

5. Given that buildings account for 89% of our electricity consumption, enhancing environmental performance and energy efficiency of buildings would greatly contribute to the quality and sustainability of our built environment. Improving building energy efficiency will help improve local air quality and alleviate the adverse impact of climate change.

Buildings Energy Efficiency Bill

6. In line with international practices in setting mandatory standards on minimum building energy efficiency standards, the Government introduced the Buildings Energy Efficiency Bill into LegCo on 9 December 2009. The Bill proposes that for newly completed buildings after the commencement of the new legislation, some key building service installations, viz. air-conditioning, electrical and lighting installations, lifts and escalators should comply with the specified energy efficiency standards and requirements. Existing buildings are required to comply with the energy efficiency standards and requirements when they undergo major retrofitting works. The Bill is now being scrutinised by a Bills Committee. The Environment Bureau (ENB) is working closely with the Bills Committee to expedite the scrutiny of the Bill.

Environment and Conservation Fund

7. To encourage the public to take concrete actions to protect the environment, the Environment and Conservation Fund (ECF) allocated

$150 million to subsidise owners of residential, industrial and commercial buildings to carry out energy-cum-carbon audits, and to identify opportunities for reducing greenhouse gas emissions and enhancing energy conservation. The ECF has also allocated $300 million to subsidise these building owners to conduct energy efficiency projects. The two funding schemes have been well received by the community since their launch in April 2009. Up to June 2010, more than 1 160 applications involving over 8 000 buildings had been received. Among them, 453 funding applications had been approved and the grant amounted to $104.5 million. The total electricity saving of the approved applications is estimated to be 66 million kWh per annum, which is equivalent to a reduction of carbon dioxide emission by 46 200 tonnes. The ENB will continue to promote the funding schemes.

8. With the injection of $1 billion to the ECF since April 2008, the ECF has extended its scope to provide funding support for installing green features in school campuses and premises of non-governmental organisations such as camp sites and elderly homes. As at end June 2010, funding support for the green features of 540 premises had been approved, with a total allocation of $164.41 million. Green features that have been supported include greening, renewable energy installations and energy-efficient devices. To set an example for the community, applicants are also requested to organise educational activities or open their premises for visits by the community where appropriate.

Carbon Audit Guidelines

9. Based on internationally recognised approaches and after taking into account the local emissions situation, the Government launched in July 2008 a set of carbon audit guidelines for buildings in Hong Kong. The guidelines provide a systematic and scientific approach to account for and report on greenhouse gas emissions and removals from buildings, which further facilitate identification of areas for improvement and work to reduce emissions arising from building operations. The Government has joined efforts with different sectors of the community to encourage buildings' management to conduct carbon audits in buildings and initiate carbon reduction programmes. So far, more than 180 organisations have signed up to become our "Carbon Audit • Green Partners".

HONG KONG GREEN BUILDING COUNCIL

10. The Hong Kong Green Building Council (HKGBC), inaugurated in November 2009, is the leading body driving the promotion and creation of sustainable buildings and standards throughout Hong Kong, and engaging the community, industry and Government to create a greener, more sustainable environment. It leads the green building movement in Hong Kong and promotes the adoption of green building standards as well as the construction and maintenance of green buildings. Its aim is to improve the quality of the built environment for the benefit of the community of Hong Kong at large.

11. The HKGBC engages the community, industry, and Government to create practical solutions for Hong Kong's unique subtropical built environment. Through partnership and engagement, Hong Kong's green building practices will gain momentum for providing better choices, creating a more competitive market internationally, and making good community and business sense. In particular, the HKGBC aims to drive market transformation by –

(a) reaching out to the public and industry on how their actions can contribute to positive change in the built environment;

(b) engaging a strong body of members to bring together industry leaders and passionate supporters in a united council;

(c) promoting performance rating standards, such as the Building Environmental Assessment Method (BEAM), to benchmark and enhance the performance of Hong Kong's built environment; and

(d) promoting understanding and facilitating ongoing educational outreach and research including training, seminars and focused area studies, in partnership with different industry stakeholders.

BEAM Plus

12. A distinctive building environmental assessment method for the Hong Kong environment, called "BEAM Plus" green building label, was officially launched on 1 April 2010. The BEAM Plus, recognised by the HKGBC, helps building owners to make use of one assessment

methodology with best 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 refurbished building, or one that is in use. The adoption of this voluntary scheme developed in partnership with industry stakeholders would assure healthier, higher quality, more durable, efficient, and environmentally sustainable working and living environments.

13. To support the operation of the BEAM Plus, the HKGBC has launched the programme of "BEAM Professionals" since April 2010 and is operating associated training courses and assessments. It also maintains a list of accredited BEAM Professionals for public enquiries.

14. With a view to refining the system of BEAM Plus, a consultancy study together with a stakeholder engagement exercise will be carried out by the HKGBC in the coming months. The objective is to achieve consensus building on the roadmap, priorities and strategies for the short and long term developments of green building certification system in Hong Kong.

Government as Pioneer

15. The Government fully supports the promotion of green buildings and the work of the HKGBC. Since April 2009, all newly-built Government buildings with construction floor areas of more than 10 000 square metres are required to be assessed by an internationally or locally recognised building environmental assessment system and the buildings must attain the second highest grade or above under the recognised assessment systems.

PUBLIC ENGAGEMENT ON SUSTAINABLE BUILT ENVIRONMENT

16. The public engagement exercise has stimulated public interest over the issue of sustainable building design and quality built environment, and attracted many useful comments. To briefly recap, the

engagement presented three major subjects for public consideration, with detailed descriptions of the pros and cons, and possible tradeoffs on various policy options –

(a) enhancement of sustainable building design;
(b) review on provision of essential, green and amenity features in buildings and gross floor area (GFA) concessions; and
(c) energy efficiency of buildings.

17. The public engagement process started on 20 June 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 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 possible solutions regarding our built environment.

18. Upon the completion of the public engagement on 31 October 2009, the SDC and its dedicated Support Group, comprising professionals and stakeholders from various sectors, considered and analysed views collected from around 1 600 data sources. The full report of the SDC is attached at **Annex**.

19. The public engagement has revealed a clear call from the community for change and that the status quo is not an option. There is a strong public aspiration for a quality and sustainable built environment. The SDC has made recommendations focusing on the core issues within the scope of the public engagement exercise as well as further related issues from a wider perspective. The formulation of the recommendations was a balancing process in which issues such as desirability versus feasibility, public interests versus private ones, flat owners/potential owners versus developers, cost versus effectiveness, etc. were all taken into account for achieving a quality and sustainable built environment. Members are requested to refer to the Executive Summary of the SDC Report for a full account of the Council's recommendations.

The ensuing paragraphs highlight the major recommendations made by the SDC.

GFA Concessions

20. The SDC recommends the Government to impose an overall cap on the total amount of GFA concession to be granted for a development project, and adopt a more performance-based and site-specific approach in determining the overall cap in the longer run.

21. While status quo is recommended for mandatory features, the SDC recommends the Government to review and reduce the level of a range of existing GFA concessions for green and amenity features, such as club houses, balconies, utility platforms, non-structural prefabricated external walls and building management facilities, and to do away with GFA concession for mail delivery rooms and for wider common corridors unless natural ventilation is provided for.

22. Car parks are a major contributor towards building bulk and height. 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 than above-ground car parks. Other factors such as energy efficiency in providing lighting and air ventilation to underground car parks are recommended to be taken into account in the design of the underground car parks.

Sustainable Building Design

23. The SDC recommends mandatory building separation for large building developments and mandatory building setback for buildings abutting narrow streets to mitigate the wall-effect and urban heat island effect. A mechanism is recommended to be worked out whereby adjustment of the prescribed requirement might be allowed upon scientific evidence (covering factors like site location and configuration, wind direction, air ventilation, urban climatic considerations, etc).

24. Regarding the provision of building setbacks, a justifiable

compensation scheme is recommended to be put together 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. To align with the recommendations regarding setback, the Government is recommended to 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.

25. On greenery, the SDC recommends that the Government should impose mandatory requirement to provide greenery for large sites, including greenery at the ground level as a priority, as well as podium and roof levels. The Government should also include greening in public sites and enhance greening in the public realm.

Building Energy Efficiency

26. On building energy efficiency, there is public support for the incorporation of more energy efficient design and installations in buildings. The SDC recommends the Government to review the subsequent statutory requirements under the mandatory Building Energy Codes from time to time and provide assistance to existing buildings for retrofitting; promote use of building energy efficiency benchmarking and accreditation system; provide additional building design guidelines for building energy efficiency; and take the lead by setting a target in implementing energy efficiency initiatives in public buildings.

ON-GOING ACTIONS

27. The Government is thankful to the SDC for undertaking the public engagement exercise. We fully agree to the directions of the Council's recommendations. In fact, a number of recommendations echo with the on-going measures of the Government (including those in relation to energy efficiency and green buildings mentioned in paragraphs 5 – 14 above) which share the same objective of fostering a quality and sustainable built environment. Hereunder are highlights of some

planning and building initiatives being undertaken.

Review of Outline Zoning Plans

28. In response to growing community aspirations for a better living environment, the Town Planning Board (TPB) has been reviewing the Outline Zoning Plans (OZPs) of various districts in a progressive manner and, where justified, revising the relevant planning parameters to lower development intensity. Priority in the review of OZPs is given to areas of special setting and character such as areas around the Victoria Harbour and within view corridors to important ridgelines, potential land sale sites and areas subject to high development or redevelopment pressure. The TPB has so far reviewed 19 OZPs and part of three OZPs[1], and has incorporated building height and other development restrictions in appropriate land use zones.

29. In determining the development restrictions to be imposed on any OZP, the TPB will take into account all relevant planning considerations, including the existing topography, the general character of the area, the existing and planned building height profile, urban design, air ventilation, infrastructure capacity, private development rights, public aspirations, and the overall public interest. The review of OZPs will continue in the coming years. Close dialogue with relevant stakeholders will be maintained with a view to achieving a better living environment in Hong Kong.

30. The Planning Department is also currently undertaking an "Urban Climatic Map and Standards for Wind Environment - Feasibility Study". The Study would be completed in end 2010/early 2011. The study's findings would provide a more scientific and objective basis for urban climatic consideration in town planning.

[1] The 22 OZPs concerned are Yuen Long, North Point, Ho Man Tin, Ma Tau Kok, Wong Nai Chung, Hung Hom, Mid-levels West, Tsim Sha Tsui, Quarry Bay, Tsz Wan Shan/Diamond Hill/San Po Kong, Shau Kei Wan, Cha Kwo Ling/Yau Ting/Lei Yue Mun (part), Tseung Kwan O (part), Ma On Shan, Chek Lap Kok (part), Mid-levels East, Tuen Mun, Shek Kip Mei, So Kwun Wat, Sai Ying Pun and Sheung Wan, Aberdeen and Ap Lei Chau, and the Peak Area.

Dissemination of Information on GFA Concessions

31. Another area of concern of the SDC is the enhancement of dissemination of information and transparency. In parallel with the public engagement process, the Buildings Department (BD) has introduced new measures to enhance public knowledge about GFA concessions granted for individual building projects.

32. The BD has revised its practice notes to require that in making application for approval of a building development involving GFA concessions, a detailed breakdown of the areas of all kinds of GFA concessions, including exempted, disregarded and bonus GFA, should be clearly specified on the final building plans submitted to the Building Authority for approval. A summary of the GFA concessions will be published on the BD's website upon completion of the development.

WAY FORWARD

33. As reflected in the recommendations of the report, the public engagement has pointed to a clear need for putting in place new measures to encourage building setback, building separation and more green coverage in buildings, changes to the current practices of granting GFA concessions in buildings, and transparency of the property market. The Administration is carefully studying the recommendations of the SDC and mapping out concrete proposals to implement the same.

34. In devising policy responses to the SDC's recommendations, the Development Bureau will adopt the following principles –

(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 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.

Implementation

35. As mentioned in our reply to a written LegCo question on 16 December 2009, if the Government decides that changes should be made to the current policy measures, the relevant bodies, such as LegCo, Land and Development Advisory Committee, Hong Kong Green Building Council, etc. will be consulted on the details of the proposal through the established channels. We will then issue new practice notes for the implementation of the new policy measures. Some of such measures may require legislative amendments.

36. We understand that during such period when the way forward has yet to be confirmed, the market may include a risk factor when participating in Government land auctions or calculating the premiums for lease modification or land exchange. That might create an impact on public revenue. We are of the view that there is a need to provide clarity and certainty to the market. As such, we need to clarify the Government's intention, which is that any new policy measures will not have retrospective effect in the sense that the current arrangement in respect of the granting of GFA concessions will continue to apply to the green, amenity and essential features included in the general building plans if such plans are approved by the Building Authority prior to the implementation of any new policy measures. Given the time required for the above actions, we anticipate that the implementation of any new policy measures will not be earlier than 31 March 2011. If legislative amendment is required for the new policy measures, it will take a longer period of time for implementation. We are considering whether further arrangements are necessary to provide more certainty to the market.

ADVICE SOUGHT

37. Members are invited to note the contents of the paper and comment on the various on-going and proposed initiatives.

Development Bureau
July 2010

Annex

Council for Sustainable Development

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

(June 2010)

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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 partners.

[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**
	• 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.
(iv) Car Parks	• The Government should review and update the Hong

(b) GFA Concessions	**Recommendations**
	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 Concessions	• The Government should impose an overall cap on the total GFA concessions to be granted and taking into

(b) GFA Concessions	Recommendations
	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 designs (e.g. building separation, building setback,

[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**
	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 also be published online for public's easy reference

(c) Building Energy Efficiency	Recommendations
	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 Government's consideration on where to start the

(d) Built Environment from a Wider Perspective	Recommendations
	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 character, etc down to micro-level planning such as

(d) Built Environment from a Wider Perspective	Recommendations
	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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