

**For discussion  
29 March 2011**

**LEGISLATIVE COUNCIL  
PANEL ON DEVELOPMENT**

**Measures to Foster a Quality and Sustainable Built Environment**

**PURPOSE**

This paper informs Members of the latest progress of the implementation of the Government's package of measures to foster a quality and sustainable built environment.

**BACKGROUND**

2. We briefed Members on the details of the Government's package of measures to foster a quality and sustainable built environment at the meeting of the Panel on Development on 26 October 2010 (vide LC paper no. CB(1)155/10-11(06)). To briefly recapitulate, in response to the rising public concerns in recent years over the quality and sustainability of the built environment, we collaborated with the Council for Sustainable Development (SDC) to launch a public engagement process entitled "Building Design to Foster a Quality and Sustainable Built Environment" from June to October 2009. The exercise was to engage various sectors of the community in in-depth discussions with a view to identifying the preferred options for fostering a quality and sustainable built environment. The public engagement has revealed a clear call for change from the community. The SDC submitted its report to the Government on 25 June 2010, making a total of about 50 recommendations. These have been largely accepted by the Government.

3. The Chief Executive announced in his 2010-11 Policy Address that the Government would, in the light of the recommendations of the SDC, introduce a series of measures to enhance the design standard of new buildings to foster a quality and sustainable built environment. Relevant extract of the Policy Address are at **Annex A**. The Secretary for Development elaborated on these measures at a press conference on 15 October 2010 with the aid of a powerpoint presentation (**Annex B**).

## **LATEST PROGRESS**

4. The new requirements will be imposed through administrative means by way of new practice notes for building professionals issued by the Buildings Department (BD). The advantage of this approach is that the new measures can be implemented quickly and, where necessary, adjusted easily through revision of practice notes. Past experience indicates that the industry will follow new practices announced through practice notes.

5. Following established practice for drawing up new or revising existing practice notes, the BD circulated in November 2010 a set of draft new/revised practice notes for implementing the new measures for consultation with stakeholders in the building industry and for discussion with the Buildings Sub-committee of the Land and Development Advisory Committee. The exercise involved 15 practice notes, comprising three revised Joint Practice Notes issued by the Director of Buildings, Director of Lands and Director of Planning as well as 12 new or revised Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers issued by the Director of Buildings. We received a significant number of constructive suggestions, some of which involved complicated technical issues. Taking into account the practical concerns expressed, particularly those by building industry practitioners, and to allow more room for introducing green building features, we have refined the draft practice notes. The finalized practice notes<sup>1</sup> were promulgated on 31 January 2011 for implementation from 1 April 2011. The list of the practice notes promulgated is at **Annex C**.

6. The finalized practice notes have adhered to the policy objectives and initiatives as announced by the Chief Executive and represent a careful balance between public concerns over the impact of new building bulk on the surrounding environment and the community's aspirations for more green and amenity features in our new buildings. The refinements made are well justified and have taken into account the views of building professionals and practitioners on the operation details. The objective is to ensure that the new practice notes are effective in practice to achieve their purposes. The major refinements are highlighted in the ensuing paragraphs.

### **Submission of BEAM Plus Assessment**

7. Our original proposal was to require the submission of the result of the BEAM Plus Provisional Assessment of a building at the time when its general

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<sup>1</sup>

The full version of these practice notes could be found in the following addresses under BD's website:  
[www.bd.gov.hk/english/documents/index\\_pnap20110131.html](http://www.bd.gov.hk/english/documents/index_pnap20110131.html)  
[www.bd.gov.hk/english/documents/index\\_joint.html](http://www.bd.gov.hk/english/documents/index_joint.html)

building plan is submitted to the Building Authority (BA) for approval. During the consultation, some stakeholders pointed out that the design of many features relating to energy efficiency of a building would still be at a preliminary stage when its general building plan is ready for submission to the BA for approval. It is premature to seek BEAM Plus Provisional Assessment at the building plan submission stage. Regarding the BEAM Plus Final Assessment, practitioners' view was that it would be more practical to do it after the completion of testing and commissioning of the building services installations. Thus, to ensure that green building certification will not delay the building plan submission process and, in turn, the building construction programme, the BD has refined the relevant practice note to stipulate that at the crux of building plan submission the authorized person is only required to confirm that the building project has been duly registered for assessment but the result of the BEAM Plus Provisional Assessment certification conferred by the HKGBC (as well as estimation of energy consumption) may be submitted at the time of application for consent to commence the building works for superstructure instead. Likewise, the result of the BEAM Plus Final Assessment certification is to be submitted within six months instead of three months from the date of issue of occupation permit. These finalized arrangements have all support of the HKGBC.

### **Definition of Underground Car Parking Spaces**

8. Car parks are a significant contributor to building bulk and height but it should be noted that its provision in building projects is normally required by the Transport Department. Under the existing policy, any floor space that the BA is satisfied to be used as car parks of the development may be disregarded from GFA calculation (100% GFA concessions). Taking account of community support for the SDC's recommendation to reduce the level of GFA concessions for car parks, we announced that car parks may be granted 100% GFA concessions only where they are provided underground and are "electric-vehicle (EV) charging-enabling". For car parks that are EV charging-enabling but are above-ground, 50% GFA concessions may be granted. Exceptions would be considered for granting 100% GFA concessions where it could be proven with sufficient evidence that it is technically infeasible to construct the car park underground due to site constraints or where an above-ground car park poses no adverse environmental or visual impact to its surrounding areas.

9. During the consultation, building professionals raised concerns on the definition of "underground car parks", in particular for developments in sloping sites which are common in Hong Kong. Questions on the treatment of loading and unloading facilities, as well as of the types of situations where underground car parks would be considered not feasible, were raised. There were also

concerns over the impact of excavation on production of fill materials. In response, we have now provided in the finalized practice notes a clear interpretation of "underground" in the consideration of car parks that may receive 100% GFA concession, and clarified that loading and unloading facilities on the ground level may also receive 100% GFA concession. The above specifications will cater for developments located on sloping sites and at the same time address the concerns over excessive excavation. The technical details of the clarified requirements for car parks are at **Annex D**. To be eligible for the concession, the car parking spaces still have to be "EV charging-enabling" with the infrastructure or provisions for future installation of standard charging facilities.

### **GFA Concessions for Environmentally Friendly Features**

10. GFA concessions for building features are justified for encouraging the provision of environmentally friendly features for residents as well as the neighbourhood. In our original proposal, where such features are beneficial to the neighbourhood (such as podium gardens), we allowed them to be provided outside of the 10% cap. During the consultation, building professionals strongly suggested that certain energy efficient and environmentally friendly design features, which actually would not add to the building height or building bulk, should be given added encouragement for their provision. We have carefully reviewed the list of features that should be covered by the 10% cap, and have now excluded the following environmental features from the cap: wing walls, wind catchers and funnels, noise barriers and acoustic fins, rainwater/grey water recycling systems, horizontal screens for covered walkways with the provision of greenery. Incorporation of these features would make our buildings greener and help mitigate noise or enhance wind flow. In reality, they were seldom adopted in the past and have not been a major cause of building bulk concern. We have clarified in the revised practice notes that the BD will consider providing GFA concessions for these features on a case-by-case basis. Applicants will be required to provide quantitative assessment of the environmental achievement to demonstrate that the features can serve their respective purposes and are genuinely beneficial to the community. A summary of features that are covered under the 10% cap on GFA concessions under the revised practice notes is at **Annex E**.

### **One-time Resubmission of Building Plans**

11. The new practice notes will come into effect on 1 April 2011 and be applied to building plans submitted to the BD for approval on or after 1 April 2011. In other words, the existing practice notes will continue to apply to building plans submitted by developers to the BD on or before 31 March 2011.

Plans submitted thereafter will be processed in accordance with the new package of measures. This cut-off date has taken into account public aspiration for early implementation of the new policies to foster a quality and sustainable built environment and time required for the Administration's consultation with the industry on draft practice notes and the latter's time required for preparation.

12. During the stakeholder consultation, building professionals and developers raised the concern that it was not uncommon for a building plan to be disapproved due to reasons that an applicant cannot foresee before submission of the building plan (e.g. comments/requirements from other departments which may have implications for the proposal resulting in disapproval of the plan under section 16(1) of the BO) and/or due to difference in opinion on the interpretation and application of the statutory provisions, given the statutory deadline (i.e. 60 days) for consideration of plans, these submissions would normally have to be rejected and a resubmission of the plan is required to rectify the disapproved items. Yet, the reasons for disapproval may not be related to the GFA concessions at all. In order to address the reasons for disapproval of the plan, the applicant should be given the chance to discuss with the BD and the relevant departments and make necessary adjustments to the building plan to satisfy the requirements of the authorities. Subjecting such plans submitted before 1 April 2011 to the new policy was considered grossly unfair.

13. Given this practical consideration and as a one-off transitional arrangement, provision has been made in the finalized practice notes to allow applicants of new building projects facing such circumstances (i.e. building plans that are submitted on or before 31 March 2011 but are disapproved) to re-submit revised building plans, once only, within six months upon rejection of the original plans for processing under the current GFA concession policy. Should such resubmitted plans be subsequently refused by the BA, any further resubmission of building plans to the BD for the same site will be subject to the new policy on GFA concessions. It should also be noted that other than the GFA concession policy, all prevailing requirements at the time of the resubmission, including the latest building regulations, the prevailing statutory planning restrictions/requirements as set out in the extant statutory plan and approved planning applications, and other administrative/statutory requirements, will be applicable to the resubmitted plans.

14. During the consultation, we have also received suggestions to defer implementation of the new policy to allow more time for the industry to make preparations. We do not consider these justifiable. The public has already given us a clear mandate for change in the course of the extensive public engagement undertaken by the SDC. We believe that building professionals

and the industry should have been prepared for the change. As such, the new measures will take effect from 1 April 2011 as originally planned.

### **Disclosure in Sales Brochures**

15. It was mentioned in the Administration's response to the recommendations in the SDC's report in October 2010 that the Transport and Housing Bureau (THB) would require inclusion of relevant information, inter alia, breakdown of GFA concessions obtained for all features, in the sales brochures of uncompleted first-hand private residential developments which the Lands Department has granted pre-sale consent. Since then, the THB has set up a "Steering Committee on the Regulation of the Sale of First-hand Residential Properties by Legislation" (the Steering Committee) to discuss specific issues pertaining to the regulation of the sale of first-hand properties by legislation. The Steering Committee will discuss how best to take on board SDC's recommendations. Before the enactment of the new legislation, the BD will, as an interim measure, continue with its current practice of imposing a condition to require information in relation to GFA concessions of the green features to be included in the sales brochures when granting GFA concessions under the BO. The relevant practice note is being revised.

### **Application to Government and Urban Renewal Authority Projects**

16. During the Motion Debate on the Policy Address, Members who had spoken on the subject generally welcomed the Government's initiatives to regulate "inflated buildings". Some went on to suggest that Government should set a good example by re-designing those West Rail projects with building plans approved under the old GFA concessions policy. In response to this suggestion, the Financial Secretary has requested the MTR Corporation Limited to re-design six property development projects along the West Rail (at Nam Cheong Station, Tsuen Wan (TW) West Station (i.e. TW5 (Cityside), TW5 (Bayside) and TW6), Long Ping (North) at Long Ping Station and Tin Shui Wai Station) owned by the Government through the West Rail Property Development Limited to comply with new requirements notwithstanding that they have all reached an advanced stage with approved master layout plans and/or general building plans. In the course of redesigning these six projects, the opportunity will also be taken to change the flat mix to increase the supply of small and medium-sized flats. Moreover, the Urban Renewal Authority also stipulated in its tendering document, which was issued in October 2010, for the development of the Fuk Chuen Street/Peel Street project a requirement for the building plans to comply with the new requirements. The former Yuen Long Estate site tendered in February 2011 has also been made subject to the new requirement, notably the 10% cap as stipulated in the Conditions of Sale.

**ADVICE SOUGHT**

17. Members are invited to note the latest progress of the implementation of the package of measures to foster a quality and sustainable built environment.

**Development Bureau**  
**March 2011**

## **Extract of the Policy Address 2011-12**

### **Sustainable Built Environment**

40. The Government is committed to enhancing the design standard of new buildings to foster a quality and sustainable built environment for our next generation. In light of the recommendations of the Council for Sustainable Development, the Government will introduce a series of measures, requiring the incorporation of such design elements as building separation or enhancement of building permeability, setback and greenery in new buildings. To widely promote green building in Hong Kong, we will raise the building energy efficiency standards and require developers to provide environmental and energy consumption information of buildings for the reference of potential users.

### **Controlling “Inflated Buildings”**

41. The Government's purpose of allowing private buildings to increase floor area to include green and amenity features is to enhance the living environment of private buildings. In recent years, there have been community concerns about developers using this concessionary policy to substantially increase the floor area of buildings, which has given rise to the so-called “inflated building” problem. After a review, we have decided to tighten the policy. Major changes include doing away with concessions for certain features, lowering the level of concessions for car parks, balconies, utility platforms and clubhouse facilities, and imposing an overall cap of 10% for a number of features which still qualify for concession. We will also reduce the maximum permissible area of bay windows.

42. We believe that this package will strike a proper balance between fulfilling environment performance and comfort requirements of buildings on the one hand, and minimising the impact on the surrounding environment as far as possible on the other. It will also ensure room for creativity in Hong Kong's building designs.





# Measures to Foster a Quality and Sustainable Built Environment

**Development Bureau**

**October 2010**



# Community Concerns

- Quality and sustainability of built environment
- Building bulk and height, air ventilation, greenery and energy efficiency
- Impact of gross floor area (GFA) concessions on building bulk and height



# Public Engagement Process

- Collaboration between Government and Council for Sustainable Development (SDC)
- In-depth engagement from June to October 2009
- Over 65 engagement events attended by 4,000 participants from various sectors (professional institutes, developers, green groups, general public)



# Public Engagement Process : Results

- Clear call from public : Status quo not an option
  
- SDC submitted 51 recommendations to Government in June 2010
  - (A) Sustainable Building Design (SBD) Guidelines
  - (B) GFA Concessions
  - (C) Energy Efficiency in Buildings
  - (D) Information and Transparency of Property Market

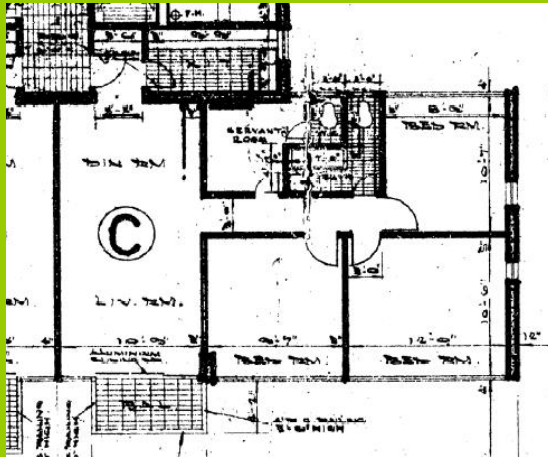


# “Inflated Buildings” & “Shrunken Flats”

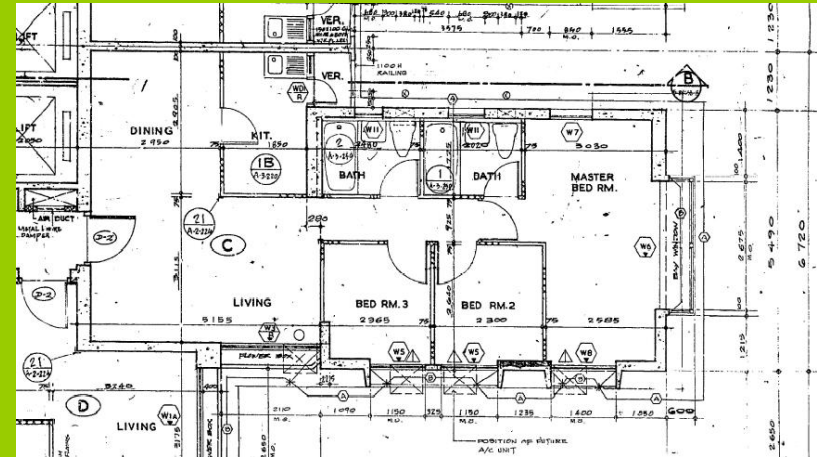
- ‘41. The Government’s purpose of allowing private buildings to increase floor area to include green and amenity features is to enhance the living environment of private buildings. In recent years, there have been community concerns about developers using this concessionary policy to substantially increase the floor area of buildings, which has given rise to the so-called “inflated building” problem.’
- ‘33. ... the THB will set up a steering committee to discuss specific issues on regulating the sale of first-hand flats by legislation..., including the use of saleable floor area as the only basis for listing the price per square foot to avoid misleading buyers and eradicate the problem of “shrunken flats”.’

(Note: THB = Transport and Housing Bureau)

# Evolution of Design of Residential Units



**A flat designed in 1972**



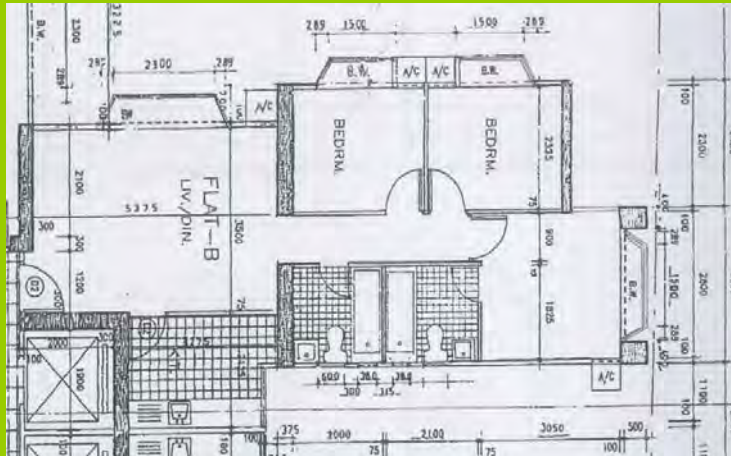
**A flat designed in 1986**

Sq ft	Saleable Area (A) (A1, A2 & A3 included)	Balcony (A1)	Utility Platform (A2)	External Walls* (A3)	Bay Windows (B)	Unit Covered Area (C) = (A) + (B)	AppORTIONED Share of Common Area (D)	Gross Area (E) = (C) + (D)
1972 design	793	36	0	45	0	793	57	850
1986 design	817	0	0	75	16	833	74	907

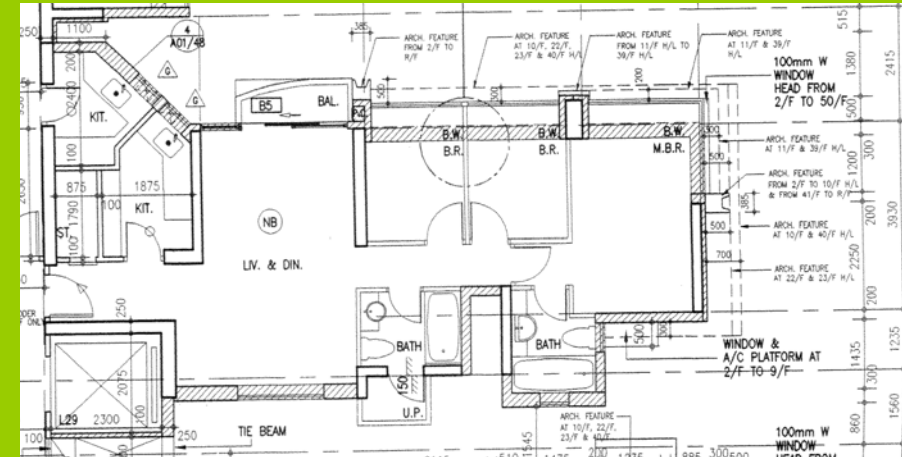
\* Currently this item is not separately listed out in sales brochures

# The above information is summarised by the Buildings Department from approved plans and sales information

# Evolution of Design of Residential Units



**A flat designed in 1993**



**A flat designed in 2010**

	Saleable Area (A) (A1, A2 & A3 included) Sq ft	Balcony (A1)	Utility Platform (A2)	External Walls* (A3)	Bay Windows (B)	Unit Covered Area (C) = (A) + (B)	Apportioned Share of Common Area (D)	Gross Area (E) = (C) + (D)
1993 design	732	0	0	61	52	784	161	945
2010 design	785	22	16	132	34	819	211	1,030

\* Currently this item is not separately listed out in sales brochures

# The above information is summarised by the Buildings Department from approved plans and sales information

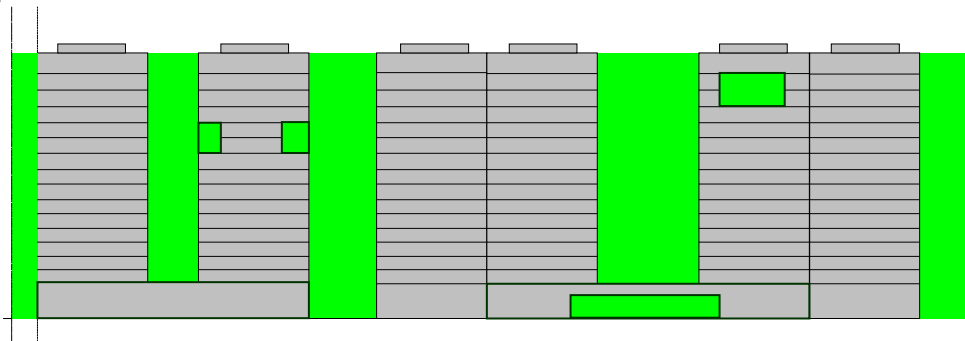
# (A) SBD Guidelines

## 1 Building Separation and Permeability

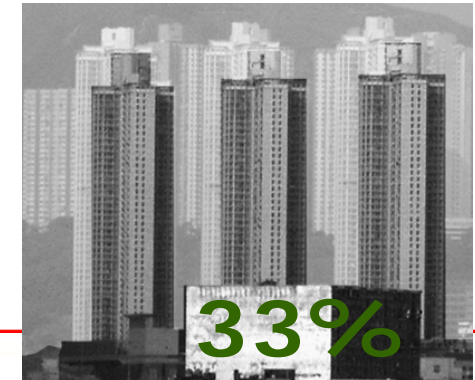
- Improve air ventilation
- Mitigate heat island effect

Depending on site area and building height, provision of 20%/25%/33.3% permeability applies to -

- Site area not less than 2 hectares; or
- Continuous façade length not less than 60 metres



■ Green parts represent acceptable building separation / permeable elements (including sky/podium gardens, void decks, refuge floors, building setbacks and varied building profiles)



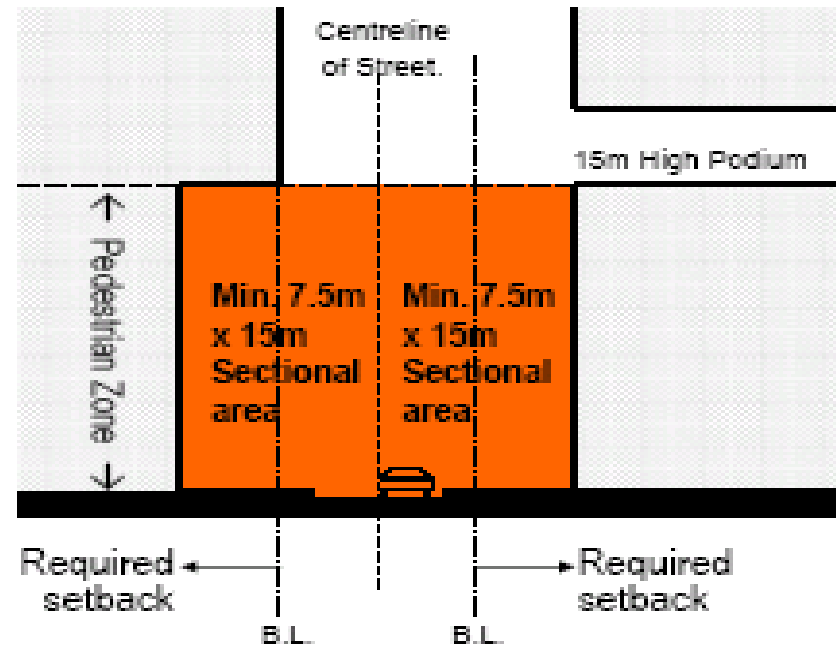


# (A) SBD Guidelines

## 2 Building Setback

- Improve airflow in streets
- Mitigate heat island effect
- Enhance environmental quality at pedestrian level

- Applicable to streets less than 15-metre wide  
(e.g. Temple Street & Thomson Road)
- Minimum cross-sectional area of street canyon required:  
7.5-metre wide x 15-metre high

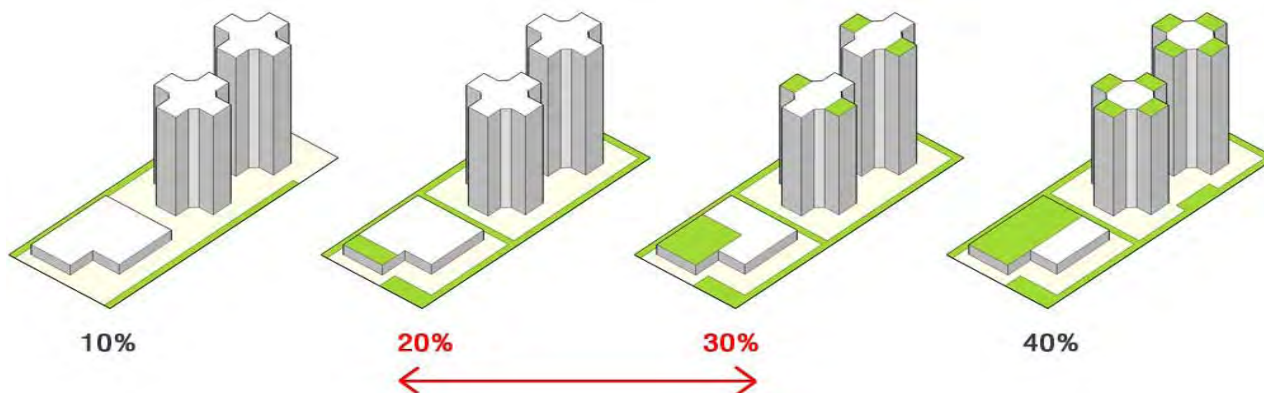


Cross-sectional Plan

# (A) SBD Guidelines

## 3 Site Coverage of Greenery

- Mitigate heat island effect
- Enhance living environment



Minimum site coverage of greenery \* :

- For sites not less than 1,000 m<sup>2</sup> : 20%
- For sites of 2 hectares or above : 30%

\* Excluding greenery covered by roofed over area



## **(B) GFA Concessions and Other Measures**

- Government has reviewed each and every item attracting GFA concessions and other measures, and decided:
  - To maintain status quo for GFA concessions for mandatory features (e.g. fire refuge floors, refuse storage and material recovery chambers, etc)
  - Green and amenity features
    - Beneficial to residents only : to impose overall cap on GFA concessions
    - Beneficial to community : not subject to overall cap on GFA concessions but to impose other controls
  - To tighten up GFA concessions for car parks
  - To tighten up design specification for projecting windows (i.e. bay windows)



## (B) GFA Concessions

To obtain GFA concessions for green and amenity features in domestic and non-domestic development:

- Prerequisites :
  - Compliance with abovementioned SBD guidelines
  - Submission of “BEAM Plus Assessment conferred by the Hong Kong Green Building Council (HKGBC)” and energy efficiency data
- Overall cap on GFA concessions for available green and amenity features (except those beneficial to community) : **10%** (applicable to residential and commercial buildings)



## (B) GFA Concessions – Overall Cap

The following features are subject to 10% overall cap and certain individual items will be tightened up:

### ■ Green features

- Balconies (concessions halved)
- Utility platforms (concessions halved)
- Wider common corridors and lift lobbies (concessions only for those with natural ventilation)
- Non-structural prefabricated external walls (thickness eligible for concessions halved from 300 mm to 150 mm)
- Wing walls, wind catchers and funnels
- Noise barriers
- Acoustic fins

### ■ Amenity features

- Residential recreational facilities (including clubhouses and swimming pool filtration rooms) (a cap with sliding scale from 2.5% to 5%; as compared to across-the-board 5% at present)
- Covered walkways/trellis
- Management facilities (e.g. caretakers' office)
- Larger lift shaft areas
- Prestigious entrances (non-domestic development only; doing away with concessions for domestic development)
- Voids
- Pipe ducts/air ducts/chimney shafts
- Non-mandatory plant rooms (e.g. central air conditioning)
- Plant rooms and covered floor spaces (for accommodation of energy efficient or environmentally friendly systems (e.g. rainwater/grey water recycling systems))

# (B) GFA Concessions – Overall Cap

The following are not subject to overall cap:

- **Mandatory features**
  - Essential plant rooms and other services
  - Fire refuge floors
  - Public passages
- **Features beneficial to community or with practical need**
  - Communal sky gardens
  - Covered gardens/play areas/communal podium gardens
  - High headrooms/voids in cinemas, shopping arcades, etc
- **Other items (functional features)**
  - Car parks and loading and unloading areas (separate control)
  - Sunshades and reflectors
  - Back-of-house facilities of hotels





## **(B) GFA Concessions**

Do away with GFA concession for the following features:

- Entrance voids/prestigious entrances in domestic developments
- Mail rooms/mail delivery rooms with mail boxes
- Miniature logistic service rooms (for residential buildings)



## **(B) GFA Concessions – Car Parks**

- Underground : 100% concession  
Above ground : 50% concession (unless technically infeasible to be constructed underground)
- Prerequisites for concessions:  
electric-vehicle charging-enabling
- To complete review of car parking space requirement in private residential developments by end of year, and revise standard of car parking spaces in Hong Kong Planning Standards and Guidelines
- Transport Department continues to scrutinise car parking spaces in building plans





## **(B) Control of Bay Window Design**

Another concern of SDC

- Existing Criteria :  
Not more than 500 mm from outer face of external wall
- Revised Criteria :  
Not more than 100 mm from outer face of external wall

# Impact of GFA Concessions on Building Bulk: 97 Sample Study Cases

GFA concessions	Domestic/Composite development						Non-domestic development	
	Residential (high density)		Residential (medium density)		Residential (low density)			
	Range	Average	Range	Average	Range	Average	Range	Average
Bonus GFA	0-10%	1%	Nil		Nil		1-17%	4%
Disregarded GFA (car parks)	0-37%	13%	4-111%	42%	6-64%	32%	0-33%	12%
Other disregarded GFA (e.g. plant rooms, but excluding car parks)	3-17%	9%	4-17%	10%	3-33%	11%	6-29%	15%
Exempted GFA (e.g. green and amenity features)	3-29%	17%	9-24%	15%	2-19%	14%	0.3-15%	6%
	Total	40%	Total	67%	Total	57%	Total	37%



# Effect of New Measures on Sample Cases

# (B) GFA Concession – Domestic (1)

Features subject to overall cap	Existing concessions	Concessions under new measures
<b>Green features</b>		
(1) Balcony	3.9%	1.95%
(2) Utility platform	2.6%	1.3%
(3) Mail room/Mail delivery rooms with mail box	0.1%	
(4) Wider common corridors and lift lobbies#	1.1%	-
(5) Non-structural prefabricated external walls	3%	3%
<b>Amenity features</b>		
(1) Residential recreational facilities (e.g. clubhouses)	3%	3%
(2) Larger lift shaft areas	1.1%	1.1%
(3) Pipe ducts/chimney shafts	0.2%	0.2%
(4) Non-mandatory plant rooms (e.g. air handling unit, air conditioning plant room)	0.1%	0.1%
<b>GFA concessions for green and amenity features subject to overall cap</b>	<b>15.1% (3,227m<sup>2</sup>)</b>	<b>10.65% (10% cap*/ 2,137m<sup>2</sup>)</b>
Reduction in GFA concessions under new measures		<b>-5.1% (-1,090 m<sup>2</sup>)</b>

Features not subject to overall cap	Existing concessions	Concessions under new measures
<b>Green and amenity features</b>		
Covered gardens/play areas/communal podium gardens	0.1%	0.1%
<b>Mandatory features</b>		
(1) Essential plant rooms and other services	3.9%	3.9%
(2) Fire refuge floors	1.7%	1.7%
(3) Public passage	0.4%	0.4%
<b>GFA concessions for features not subject to overall cap</b>	<b>6.1% (1,304m<sup>2</sup>)</b>	<b>6.1% (1,304m<sup>2</sup>)</b>
<b>Other items</b>		
Car parks and loading and unloading areas^ (and associated ramps and facilities)	16%	16% (underground)
<b>GFA concessions (excluding car parks)</b>	<b>21.2% (4,531m<sup>2</sup>)</b>	<b>16.1% (3,441m<sup>2</sup>) (-1,090 m<sup>2</sup>)</b>

# There is no natural ventilation in existing common corridors and lift lobbies.

\* Features will be subject to 10% overall cap.

^ Assuming underground car parks under new measures

## (B) GFA Concession – Domestic (2)

Features subject to overall cap	Existing concessions	Concessions under new measures	Features not subject to overall cap	Existing concessions	Concessions under new measures
<b>Green features</b>			<b>Green and amenity features</b>		
(1) Balcony	2.3%	1.15%	Covered gardens/play areas/communal podium gardens	3.0%	3.0% (- 472 m <sup>2</sup> )
(2) Utility platform	1.6%	0.8%			
(3) Wider common corridors and lift lobbies <sup>#</sup>	3.8%	-	<b>Mandatory features</b>		
(4) Non-structural prefabricated external walls	5.1%	3.8%	(1) Essential plant rooms and other services	10%	10% (- 185 m <sup>2</sup> )
<b>Amenity features</b>			(2) Fire refuge floors	1%	1%
(1) Residential recreational facilities (e.g. clubhouses)	5%	3.5%	<b>GFA concessions for features not subject to overall cap</b>		
(2) Swimming pool filtration rooms	0.2%			14% (14,223m <sup>2</sup> )	14% (13,566m <sup>2</sup> )
(3) Management facilities	0.2%	0.2%	<b>Other items</b>		
(4) Larger lift shaft areas	2.9%	2.9%	Car parks and loading and unloading areas <sup>^</sup> (and associated ramps and facilities)	19%	19% (underground)
(5) Prestigious entrance	0.5%		<b>GFA concessions (excluding car parks)</b>		
(6) Voids	2%	2%		45.4% (46,126m <sup>2</sup> )	24% (23,727m <sup>2</sup> ) (-22,399 m <sup>2</sup> )
(7) Pipe ducts/chimney shafts	0.8%	0.8%			
(8) Non-mandatory plant rooms (e.g. air handling unit, air conditioning plant room)	7%	7%			
<b>GFA concessions for green and amenity features subject to overall cap</b>	<b>31.4%</b> <b>(31,902m<sup>2</sup>)</b>	<b>22.15%</b> <b>(10% cap*/ 10,159m<sup>2</sup>)</b>			
Reduction in GFA concessions under new measures		<b>- 21.4%</b> <b>(- 21,742 m<sup>2</sup>)</b>			

<sup>#</sup> There is no natural ventilation in existing common corridors and lift lobbies.

<sup>\*</sup> Features will be subject to 10% overall cap.

<sup>^</sup> Assuming underground car parks under new measures

# (B) GFA Concession – Non-domestic

Features subject to overall cap	Existing concessions	Concessions under new measures
<b>Green features</b>	Nil	
<b>Amenity features</b>		
(1) Larger lift shaft areas	<b>0.8%</b>	<b>0.8%</b>
(2) Prestigious entrance	<b>2.1%</b>	<b>2.1%</b>
(3) Pipe ducts/chimney shafts	<b>0.4%</b>	<b>0.4%</b>
(4) Non-mandatory plant rooms (e.g. air handling unit, air conditioning plant room and plant rooms to accommodate energy efficient or environmentally friendly systems/features)	<b>7.1%</b>	<b>6.8%</b>
<b>GFA concessions for green and amenity features subject to overall cap</b>	<b>10.4%</b> (2,719m <sup>2</sup> )	<b>10.1%</b> (10% Cap*/ 2,615m <sup>2</sup> )
Reduction in GFA concessions under new measures		<b>-0.4%</b> (- 104m <sup>2</sup> )

Features not subject to overall cap	Existing concessions	Concessions under new measures
<b>Mandatory features</b>		
(1) Essential plant rooms and other services	<b>24%</b>	<b>23%</b>
(2) Fire refuge floors	<b>3.1%</b>	<b>3.1%</b>
<b>GFA concessions for features not subject to overall cap</b>	<b>27.1%</b> (7,087m <sup>2</sup> )	<b>26.1%</b> (6,825m <sup>2</sup> )
<b>Other items</b>		
Car parks and loading and unloading areas <sup>^</sup> (and associated ramps and facilities)	<b>26%</b>	<b>26%</b> (underground)
<b>GFA concessions (excluding car parks)</b>	<b>37.5%</b> (9,806m <sup>2</sup> )	<b>36.1%</b> (9,440m <sup>2</sup> ) (-366 m <sup>2</sup> )

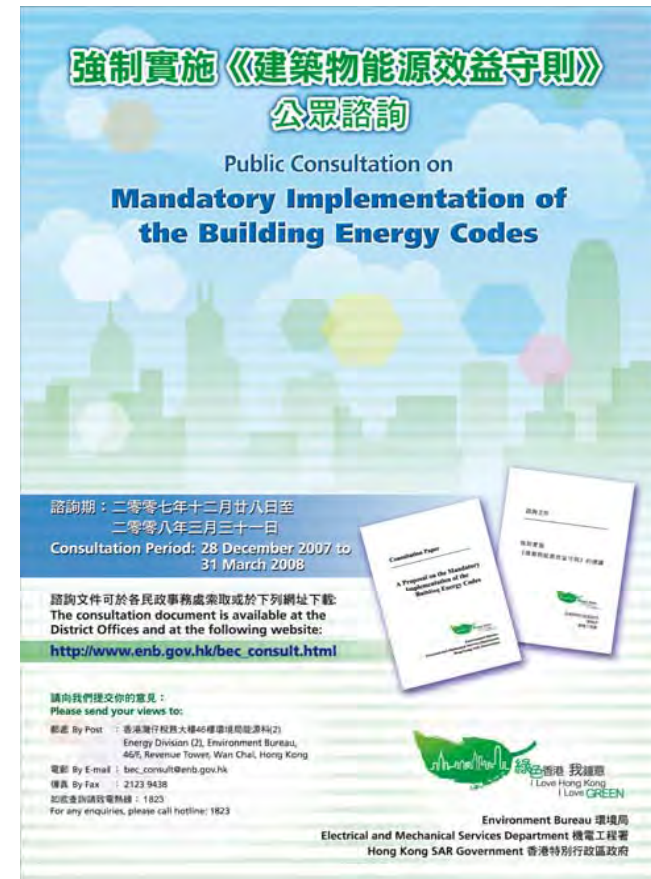
\* Features will be subject to 10% overall cap.

<sup>^</sup> Assuming underground car parks under new measures

# (C) Energy Efficiency in Buildings (1)

## ■ Mandatory Building Energy Codes (BECs)

- Buildings account for 89% of total electricity consumption in HK. Improving buildings energy efficiency could reduce greenhouse gas emissions and improve air quality
- The Legislative Council is scrutinising the bill on mandatory implementation of BECs
- Periodic review of BECs with a view to further tightening up the standards



**強制實施《建築物能源效益守則》**  
**公眾諮詢**

Public Consultation on  
**Mandatory Implementation of  
the Building Energy Codes**

諮詢期：二零零七年十二月廿八日至  
二零零八年三月三十一日  
Consultation Period: 28 December 2007 to  
31 March 2008

諮詢文件可於各民政事務處索取或於下列網址下載。  
The consultation document is available at the  
District Offices and at the following website:  
[http://www.enb.gov.hk/bec\\_consult.html](http://www.enb.gov.hk/bec_consult.html)

請向我們提交你的意見：  
Please send your views to:

郵遞 By Post：香港灣仔稅務大樓46樓環境局能源科(2)  
Energy Division (2), Environment Bureau,  
46/F, Revenue Tower, Wan Chai, Hong Kong

電郵 By E-mail： [bec\\_consult@enb.gov.hk](mailto:bec_consult@enb.gov.hk)  
傳真 By Fax： 2123 9439  
如有查詢請致電熱線：1823  
For any enquiries, please call hotline: 1823

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I Love Hong Kong  
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Environment Bureau 環境局  
Electrical and Mechanical Services Department 機電工程署  
Hong Kong SAR Government 香港特別行政區政府



## (C) Energy Efficiency in Buildings (2)

- Review of Existing Standards and Regulations
  - To save electricity consumption in air-conditioning for commercial buildings and hotels, Building (Energy Efficiency) Regulation and Code of Practice for Overall Thermal Transfer Value (OTTV) in Buildings require external walls and roofs of these buildings to be designed and constructed with suitable OTTV.
  - Current OTTV standard for building tower is proposed to be tightened up by 20%, resulting in energy saving of 2.4 to 4.4%.





## **(C) Energy Efficiency in Buildings (3)**

### **■ District Cooling System**

- Air conditioning system of high energy efficiency
- Plan to set up in Kai Tak Development
- Actively exploring feasibility of development in other sites
- Seriously considering mandating development in Kai Tak Development to use district cooling system



## **(C) Energy Efficiency in Buildings (4)**

- Requirements for GFA concessions
  - Submission of BEAM Plus Assessment conferred by HKGBC
  - Submission of energy efficiency data
  - Car parks are electric-vehicle charging-enabling

## (C) Energy Efficiency in Buildings (5)

- Assistance for Existing Buildings
  - Government launched \$450-million Buildings Energy Efficiency Funding Scheme in April 2009
    - Encourage building owners to conduct energy-cum-carbon audits and energy efficiency projects
    - Over 1,200 applications - more than \$170 million of funding granted
  - Technical advice through guidelines or voluntary schemes etc. regarding energy efficiency features/installations





## **(D) Information and Transparency of Property Market**

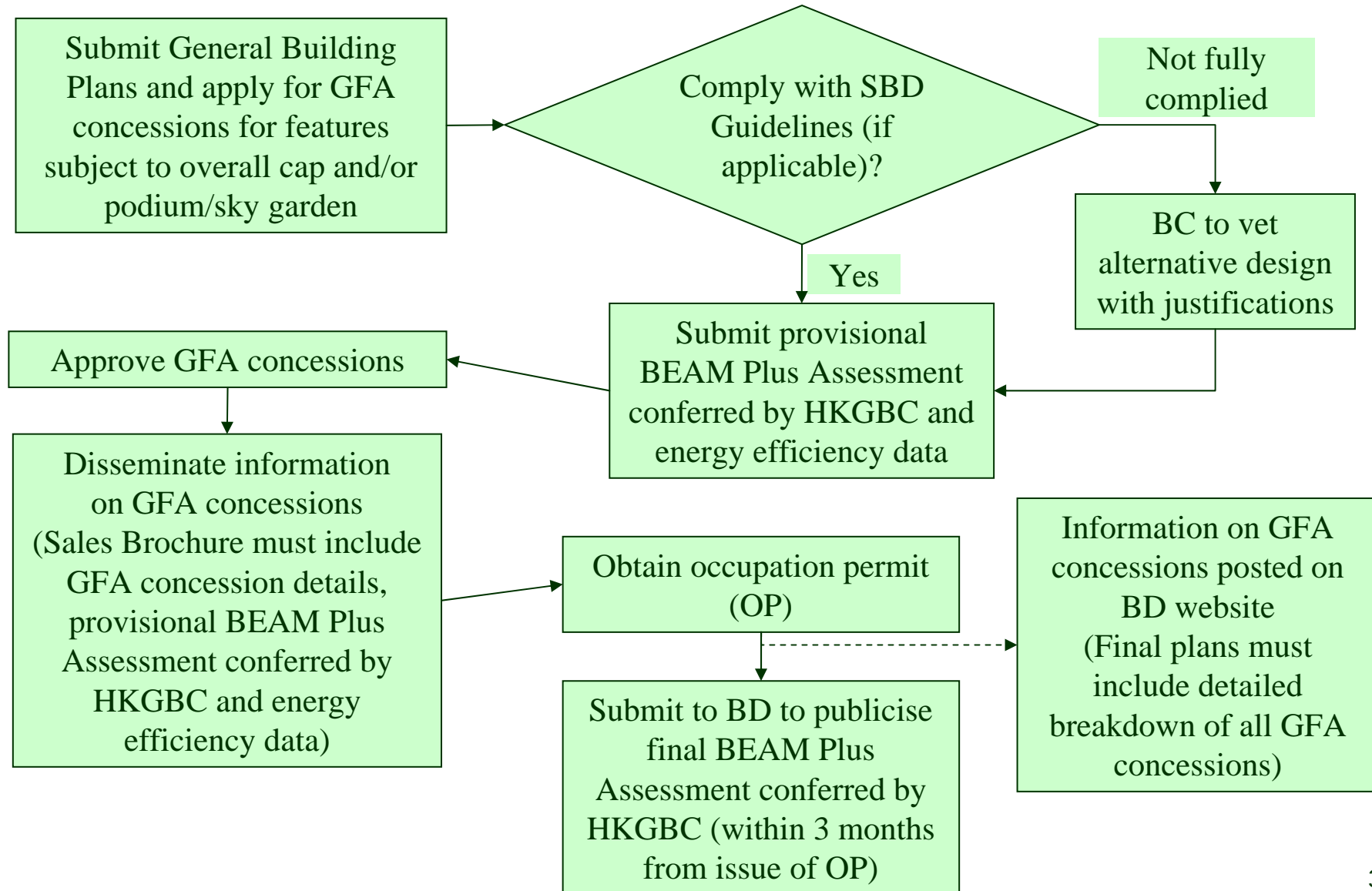
- From 1 September 2010, Buildings Department (BD) will publish GFA concession breakdown for newly completed buildings
- THB will require inclusion in sales brochures under Pre-sale Consent Scheme:
  - breakdown of GFA concessions obtained for all features
  - BEAM Plus Assessment conferred by HKGBC
  - Estimated energy consumption
- THB will consult relevant professional bodies and further require to provide breakdown on apportioned share of common area



## **Ensure Room for Creativity in Hong Kong's Building Designs – Expanded Building Committee (BC)**

- Expand existing BC of BD to include non-Government experts from relevant fields on a need basis
- Applicants to provide scientific justifications (e.g. site location and configuration, wind direction, air ventilation, urban climatic considerations, etc)
- Flexibly consider SBD designs

# Implementation Flow





# Implementation Timetable

- Consult industry on revised Practice Notes
- Issue revised Practice Notes by end 2010
- New measures applicable to new building plans submitted to BD on or after 1 April 2011
  
- Further explore measures to adopt more performance-based and site-specific approach



**Thank You**



**List of New and Revised Practice Notes  
regarding Quality and Sustainable Built Environment  
(already promulgated on 31 January 2011)**

**Joint Practice Notes (JPNs)**

- JPN 1 Green and Innovative Buildings
- JPN 2 Second Package of Incentives to Promote Green and Innovative Buildings
- JPN 4 Development Control Parameters

**Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers**

- ADM-2 Centralized Processing of Building Plans
- APP-2 Calculation of Gross Floor Area and Non-accountable Gross Floor Area - Building (Planning) Regulation 23(3)(a) and (b)
- APP-19 Projections in relation to site coverage and plot ratio - Building (Planning) Regulations 20 & 21
- APP-42 Amenity Features
- APP-67 Energy Efficiency of Buildings - Building (Energy Efficiency) Regulations
- APP-89 Provision of Better Lift Service
- APP-93 Planning and Design of Drainage Works
- APP-104 Exclusion of Floor Areas for Recreational Use
- APP-111 Design of Car Parks and Loading / Unloading Facilities
- APP-126 Plans for Signboards
- APP-151 Building Design to Foster a Quality and Sustainable Built Environment
- APP-152 Sustainable Building Design Guidelines

*Note: the full version of the practice notes could be found on BD's website:  
[www.bd.gov.hk/english/documents/index\\_pnap20110131.html](http://www.bd.gov.hk/english/documents/index_pnap20110131.html) and  
[www.bd.gov.hk/english/documents/index\\_joint.html](http://www.bd.gov.hk/english/documents/index_joint.html)*

**Clarifications on Requirements concerning Carparks**

- The revised interpretation that a carpark may be accepted as an underground carpark is as follows:
  - (1) If the site abuts on only one street, a carpark may be accepted as an underground carpark if the structural ceiling soffit of the carpark is at or below the mean level of that portion of the street on which the site abuts and subject to such mean level to be not more than 5m above the lowest level of such portion of the street;
  - (2) If the site abuts more than one street, a carpark may be accepted as an underground carpark if the structural ceiling soffit of the carpark is at or below the level obtained by dividing the sum of the mean levels of the respective portion of the streets on which the site abuts by the number of streets on which the site abuts and subject to the level so obtained is not more than 5m above the mean level of that portion of the lowest street on which the site abuts;
  - (3) For the purpose of allowing the provision of natural lighting and ventilation to the carpark floors, a carpark may be accepted as an underground carpark if not more than half of the height measured from the structural floor to the structural ceiling soffit of the topmost carpark floor and subject to a maximum height of 2.5m protrudes above the level as determined in (1) or (2) above for a site abutting on only one street or more than one street respectively.
  - (4) When there are site constraints that affect the design and location of the carparking floors e.g. there is significant difference in the levels of the street(s) on which the site abuts; there is an existing large platform that governs the carparking design; the carpark is semi-sunken and follows the slope profile of the site and adjoining land, etc., the BA may consider the special circumstances of the case in accepting a carpark as an underground carpark.

- The description on “remote area”, “Density Zone Area 3” and requirement for air ventilation assessment /visual impact studies is proposed to be refined as follows:
  - Examples for accepting above-ground car parks as not posing adverse environmental or visual impact to its surrounding areas include ancillary car parks in low-rise low-density sites such as a development with plot ratio not exceeding 1 and not more than 6 storeys in height with maximum 5 storeys on top of one storey carpark.
- 100% GFA concession may be granted for loading and unloading area located on ground floor.

**List of Features subject to 10% Cap on GFA Concessions**

***Green Features***

- Balconies
- Utility platforms
- Wider common corridors and lift lobbies (with natural ventilation)
- Non-structural prefabricated external walls

***Amenity Features***

- Residential recreational facilities (including filtration plant rooms for swimming pools)
- Covered walkways/trellis without green coverage
- Management facilities (e.g. caretakers' office, owners' corporation's office)
- Larger lift shaft areas
- Prestigious entrances in non-domestic development
- Voids over main common entrances in non-domestic developments and in duplex flats and houses
- Chimney shafts
- Non-mandatory plant rooms (e.g. central air conditioning) including associated pipe ducts /air ducts for such services
- Other projections such as air-conditioning boxes and platforms with a projection of more than 750mm from the external wall