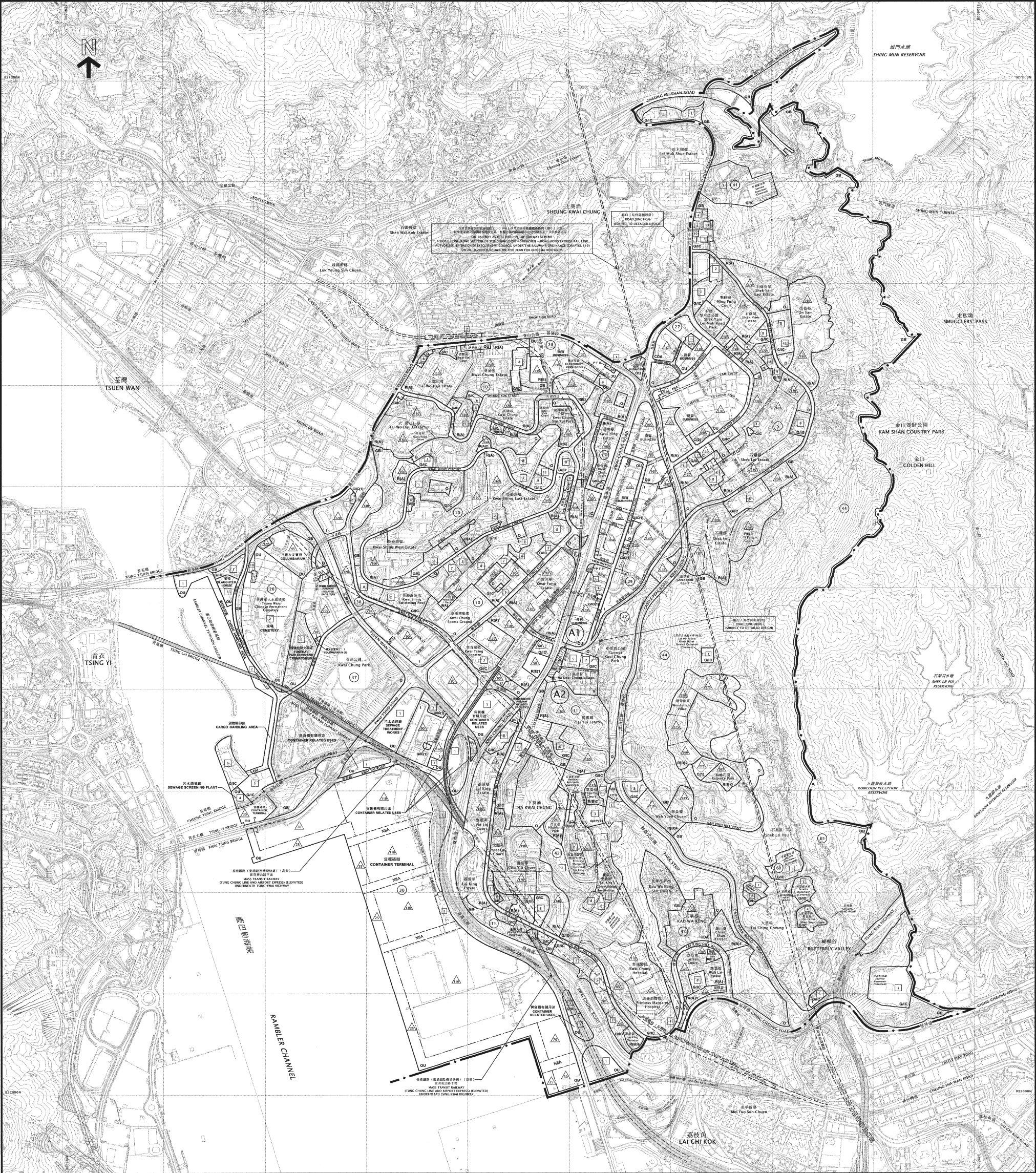


圖例 NOTATION				土地用途及面積一覽表 SCHEDULE OF USES AND AREAS				夾附的《註釋》屬這份圖則的一部分， 現經修訂並按照城市規劃條例第5條展示。 THE ATTACHED NOTES ALSO FORM PART OF THIS PLAN AND HAVE BEEN AMENDED FOR EXHIBITION UNDER SECTION 5 OF THE TOWN PLANNING ORDINANCE			
ZONES	地帶	COMMUNICATIONS	交通	USES	大約面積及百分比 公頃 HECTARES	百分比 %	用途	核准圖編號 S/KC/25 的修訂 AMENDMENTS TO APPROVED PLAN No. S/KC/25 按照城市規劃條例第5條展示的修訂 AMENDMENTS EXHIBITED UNDER SECTION 5 OF THE TOWN PLANNING ORDINANCE			
COMMERCIAL	C	商業	鐵路及車站	COMMERCIAL	5.33	0.52	商業				
COMPREHENSIVE DEVELOPMENT AREA	CDA	綜合發展區	鐵路及車站 (地下)	COMPREHENSIVE DEVELOPMENT AREA	6.35	0.62	綜合發展區	修訂項目 A 項 AMENDMENT ITEM A			
RESIDENTIAL (GROUP A)	R(A)	住宅 (甲類)	鐵路及車站 (高架)	RESIDENTIAL (GROUP A)	164.24	16.03	住宅 (甲類)				
RESIDENTIAL (GROUP B)	R(B)	住宅 (乙類)	主要道路及路口	RESIDENTIAL (GROUP B)	15.28	1.49	住宅 (乙類)	修訂項目 B 1 至 B 1 2 項 AMENDMENT ITEMS B1 TO B12			
RESIDENTIAL (GROUP E)	R(E)	住宅 (戊類)	高架道路	RESIDENTIAL (GROUP E)	3.92	0.38	住宅 (戊類)				
VILLAGE TYPE DEVELOPMENT	V	鄉村式發展	其他	VILLAGE TYPE DEVELOPMENT	2.55	0.25	鄉村式發展	修訂項目 C 1 至 C 1 6 項 AMENDMENT ITEMS C1 TO C16			
INDUSTRIAL	I	工業	其他	INDUSTRIAL	46.60	4.55	工業				
GOVERNMENT, INSTITUTION OR COMMUNITY	GIC	政府、機構或社區	其他	GOVERNMENT, INSTITUTION OR COMMUNITY	120.88	11.80	政府、機構或社區	修訂項目 D 1 至 D 1 0 項 AMENDMENT ITEMS D1 TO D10			
OPEN SPACE	O	休憩用地	其他	OPEN SPACE	115.53	11.27	休憩用地				
OTHER SPECIFIED USES	OU	其他指定用途	其他	OTHER SPECIFIED USES	173.08	16.89	其他指定用途	修訂項目 E 1 至 E 3 項 AMENDMENT ITEMS E1 TO E3			
GREEN BELT	GB	綠化地帶	其他	GREEN BELT	260.56	25.43	綠化地帶				
				MAJOR ROAD ETC.	110.38	10.77	主要道路等	修訂項目 F 1 至 F 1 7 項 AMENDMENT ITEMS F1 TO F17			
				TOTAL PLANNING SCHEME AREA	1024.70	100.00	規劃範圍總面積				
								(參看附表) (SEE ATTACHED SCHEDULE)			



圖例 NOTATION				土地用途及面積一覽表 SCHEDULE OF USES AND AREAS				用途	
ZONES	地帶	COMMUNICATIONS	交通	USES	大約面積及百分比 APPROXIMATE AREA & % 公頃 百分比	公頃 百分比	用途		
COMMERCIAL	C	商業	RAILWAY AND STATION	鐵路及車站	5.45	0.53	商業		
COMPREHENSIVE DEVELOPMENT AREA	CDA	綜合發展區	RAILWAY AND STATION (UNDERGROUND)	鐵路及車站 (地下)	6.35	0.62	綜合發展區		
RESIDENTIAL (GROUP A)	RA(A)	住宅 (甲類)	RAILWAY AND STATION (ELEVATED)	鐵路及車站 (高架)	165.80	16.18	住宅 (甲類)		
RESIDENTIAL (GROUP B)	RA(B)	住宅 (乙類)	MAJOR ROAD AND JUNCTION	主要道路及路口	15.28	1.49	住宅 (乙類)		
RESIDENTIAL (GROUP E)	RA(E)	住宅 (戊類)	ELEVATED ROAD	高架道路	3.92	0.38	住宅 (戊類)		
VILLAGE TYPE DEVELOPMENT	V	鄉村式發展			2.32	0.23	鄉村式發展		
INDUSTRIAL	I	工業			41.33	4.03	工業		
GOVERNMENT, INSTITUTION OR COMMUNITY	GIC	政府、機構或社區	MISCELLANEOUS	其他	118.84	11.60	政府、機構或社區		
OPEN SPACE	O	休憩用地	BOUNDARY OF PLANNING SCHEME	規劃範圍界線	114.66	11.21	休憩用地		
OTHER SPECIFIED USES	OU	其他指定用途	PLANNING AREA NUMBER	規劃範圍編號	174.91	17.07	其他指定用途		
GREEN BELT	GB	綠化地帶	BUILDING HEIGHT CONTROL ZONE BOUNDARY	建築物高度管制區界線	283.34	25.70	綠化地帶		
			MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)	最高建築物高度 (在主水平基準上若干米)	112.28	10.95	主要道路等		
			MAXIMUM BUILDING HEIGHT (NUMBER OF STOREYS)	最高建築物高度 (樓層數目)					
			PETROL FILLING STATION	加油站					
			NON-BUILDING AREA	非建築用地					

Building Design to Foster a Quality and Sustainable Built Environment

There has been rising public concern over the quality and sustainability of the built environment, including issues regarding building bulk and height, air ventilation, greening and energy efficiency in buildings. In 2009, the Council for Sustainable Development launched a public engagement process entitled “Building Design to Foster a Quality and Sustainable Built Environment” in collaboration with the Government. The exercise has pointed to a need for putting in place a package of new measures to foster a quality and sustainable built environment. This practice note sets out a package of measures, covering the following major elements, to promote a quality and sustainable built environment:

- (a) sustainable building design guidelines (SBD Guidelines) on building separation, building set back and site coverage of greenery,
- (b) gross floor area (GFA) concessions, and
- (c) energy efficiency of buildings.

Sustainable Building Design Guidelines

2. The Buildings Department (BD) has commissioned a consultancy study on “Building Design that Supports Sustainable Urban Living Space in Hong Kong”. Based on the study, a set of SBD Guidelines has been developed to promote building separation, building set back and site coverage of greenery as promulgated in the Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) APP-152.

3. To enhance the quality and sustainability of the built environment, the Building Authority (BA) will take account of the compliance with the SBD Guidelines as promulgated in the PNAP APP-152, where applicable, as a pre-requisite in exempting or disregarding green / amenity features and non-mandatory / non-essential plant rooms and services from GFA and/or site coverage calculations (GFA concessions) in new building developments. Such green / amenity features and non-mandatory / non-essential plant rooms and services and the relevant practice notes promulgating the criteria and requirements for granting GFA concessions are summarised in Appendix A.

/Overall

Overall Cap on GFA Concessions

4. To contain the effect on the building bulk while allowing flexibility in the design for incorporating desirable green / amenity features and non-mandatory / non-essential plant rooms and services, an overall cap will be imposed on the total amount of GFA concessions for these features, except those features described in paragraph 5 below. This cap is set at 10 % of the total GFA of the development. If a development comprises both domestic and non-domestic buildings or in the case of a composite building, GFA concessions for features serving the domestic part or the non-domestic part of the development will be calculated separately such that GFA concessions for each part will be capped at 10%, based on the total GFA of the respective part of the development. Features that are subject to this overall cap of GFA concessions are listed in the table at Appendix A.

5. GFA concessions for the following features, which may have to satisfy their own individual acceptance criteria, will not be subject to the overall cap:

- (a) Mandatory features and essential plant rooms such as refuse storage chamber, telecommunications and broadcasting rooms;
- (b) Communal podium gardens and sky gardens that improve permeability of a development to its neighbourhood;
- (c) Floor space used solely for parking motor vehicles and loading and unloading of motor vehicles which is separately controlled given its significant impact on building bulk and height and the relevant transport, planning and environmental policies;
- (d) Voids in front of cinemas or in shopping arcades, etc. with operational needs in non-domestic developments;
- (e) Bonus GFA and / or GFA exemptions relating to dedication for public passage or surrender for road widening and building set back in accordance with the SBD Guidelines; and
- (f) Hotel concessions granted under regulation 23A of the Building (Planning) Regulations.

Pre-requisites for Granting GFA Concessions

6. To promote sustainable building designs and energy efficient features in new developments, compliance with the following requirements will be pre-requisites for the granting of GFA concessions for all green / amenity features and non-mandatory / non-essential plant rooms and services provided in a proposed development as described in Appendix A:

/(a)

- (a) Compliance with the SBD Guidelines on building separation, building set back and site coverage of greenery in PNAP APP-152, where applicable;
- (b) For domestic or composite development, compliance with the requirements of PNAP APP-156 on Design and Construction Requirements for Energy Efficiency of Residential Buildings, where applicable;
- (c) Submission of the official letter issued by the Hong Kong Green Building Council (HKGBC) acknowledging the satisfactory completion of project registration application for BEAM Plus certification;
- (d) Submission of a letter by the developer or owner undertaking to submit to the BD the following documents:
 - (i) Result of the Provisional Assessment under the BEAM Plus certification conferred / issued by the HKGBC to be submitted prior to the application for consent to commence the building works shown on the approved plans (consent);
 - (ii) Information on the estimated energy performance / consumption for the common parts (for domestic developments) or for the entire building (for non-domestic developments including hotels) to be submitted in the standard form (Appendix B) prior to the consent application;
 - (iii) Information specified in item (ii) above to be updated and submitted at the time of submitting application for occupation permit (OP);
 - (iv) Result of the Final Assessment under the BEAM Plus certification conferred / issued by the HKGBC, within 18 months of the date of issuance of the OP by the BA;
 - (v) Provisional energy efficiency report prior to the consent application in accordance with PNAP APP-156, where applicable; and
 - (vi) Final energy efficiency report upon application for an OP in accordance with PNAP APP-156, where applicable;
- (e) Compliance with the overall cap on GFA concessions as described in paragraph 4 above, where applicable; and

/ (f)

- (f) Compliance with the relevant acceptance criteria for the individual green and amenity features.

Conditions for Granting GFA Concessions

7. In addition to the acceptance criteria and conditions that may be imposed for granting GFA concessions as detailed in the relevant practice notes for the green / amenity features and non-mandatory / non-essential plant rooms and services described in paragraph 6 above, the following conditions may be imposed:

- (a) The modification is given in recognition of the undertaking submitted by the developer or owner as described in paragraph 6(d) above;
- (b) Information described in paragraph 6(d)(i), (ii) and (v) above shall be submitted to the BD prior to the consent application;
- (c) Information described in paragraph 6(d)(iii) and (vi) above shall be submitted to the BD at the time of submitting application for OP;
- (d) Information described in paragraph 6(d)(iv) above shall be submitted to the BD within 18 months of the date of the OP; and
- (e) The modification will be revoked if the consent application is submitted prior to the submission of information specified in item (b) above.

8. Authorized persons should consult a registered professional engineer under the Engineers Registration Ordinance of the relevant discipline in assessing the energy efficiency of the building and in completing the standard form at Appendix B;

Disclosure for Public Information

9. To increase the transparency of information to the public, the following information will be uploaded onto the BD website after the issuance of the occupation permit:

- (a) The estimated energy performance / consumption information as described in paragraph 6(d)(iii) above;
- (b) The results of the Provisional Assessment under the BEAM Plus certification as described in paragraph 6(d)(i) above, which will be replaced by the results of the Final Assessment described in paragraph 6(d)(iv) above, upon receipt; and

/(c)

- (c) The finalised RTTV and OTTV for RRF as recorded in the final energy efficiency report.

(HUI Siu-wai)
Building Authority

Ref. : BD GP/BREG/P/49

First issue January 2011

This revision September 2014 (AD/NB1) (paras. 6, 7 and 9, Item 27 in Appendix A and Appendix B amended and previous paras. 10 and 11 deleted)

List of GFA Concessions

		Practice Notes	Features subject to compliance with the pre-requisites in para. 6 & 7 of PNAP APP-151	Features Subject to the Overall Cap of 10% in para.4 of PNAP APP-151
Disregarded GFA under Regulation 23(3)(b) of the Building (Planning) Regulations (B(P)R)				
1.	Carpark and loading/unloading area excluding public transport terminus	PNAP APP-2 and APP-111		
2.	Plant rooms and similar services			
2.1	Mandatory feature or essential plant room, area of which is limited by respective PNAP or regulation, such as lift machine room, TBE room, refuse storage chamber, etc. ¹	PNAP APP-35 & APP-84		
2.2	Mandatory feature or essential plant room, areas of which is NOT limited by any PNAP or regulation, such as room occupied solely by FSI and equipment, meter room, transformer room, potable and flushing water tank, etc. ²	PNAP APP-2 and APP-42		
2.3	Non-mandatory or non-essential plant room, such as A/C plant room, AHU room, etc. ³	PNAP APP-2 and APP-42	✓	✓
Disregarded GFA under Regulation 23A(3) of the B(P)R				
3.	Area for picking up and setting down persons departing from or arriving at the hotel by vehicle	PNAP APP-40		
4.	Supporting facilities for a hotel	PNAP APP-40		
Green Features under Joint Practice Notes (JPNs)				
5.	Balcony for residential buildings	JPN1	✓	✓
6.	Wider common corridor and lift lobby	JPN1	✓	✓
7.	Communal sky garden	JPN1 & 2 PNAP APP-122	✓	
8.	Communal podium garden for non-residential buildings	JPN1	✓	
9.	Acoustic fin	JPN1	✓	
10.	Wing wall, wind catcher and funnel	JPN1	✓	
11.	Non-structural prefabricated external wall	JPN2	✓	✓
12.	Utility platform	JPN2	✓	✓
13.	Noise barrier	JPN2	✓	
Amenity Features				
14.	Counter, office, store, guard room and lavatory for watchman and management staff, Owners' Corporation Office	PNAP APP-42	✓	✓
15.	Residential recreational facilities including void, plant room, swimming pool filtration plant room, covered walkway etc serving solely the recreational facilities	PNAP APP-2, APP-42 and APP-104	✓	✓
16.	Covered landscaped and play area	PNAP APP-42	✓	

17.	Horizontal screen/covered walkway, trellis	PNAP APP-42	✓	✓ ⁹
18.	Larger lift shaft	PNAP APP-89	✓	✓
19.	Chimney shaft	PNAP APP-2	✓	✓
20.	Other non-mandatory or non-essential plant room, such as boiler room, SMATV room ⁴	PNAP APP-2	✓	✓
21.	Pipe duct, air duct for mandatory feature or essential plant room ⁵	PNAP APP-2 & APP-93		
22.	Pipe duct, air duct for non-mandatory or non-essential plant room ⁶	PNAP APP-2	✓	✓
23.	Plant room, pipe duct, air duct for environmentally friendly system and feature ⁷	PNAP APP-2	✓	
24.	High headroom and void in front of cinema, shopping arcade etc. in non-domestic development ⁸	PNAP APP-2	✓	
25.	Void over main common entrance (prestige entrance) in non-domestic development	PNAP APP-2 & APP-42	✓	✓
26.	Void in duplex domestic flat and house	PNAP APP-2	✓	✓
27.	Sunshade and reflector	PNAP APP-19, APP-67 & APP-156		
28.	Minor projection such as AC box, window cill, projecting window	PNAP APP-19 & APP-42		
29.	Other projection such as air-conditioning box and platform with a projection of more than 750mm from the external wall	PNAP APP-19	✓	✓
Other Items				
30.	Refuge floor including refuge floor cum sky garden	PNAP APP-2 & APP-122		
31.	Covered area under large projecting/overhanging feature	PNAP APP-19		
32.	Public transport terminus (PTT)	PNAP APP-2		
33.	Party structure and common staircase	PNAP ADM-2		
34.	Horizontal area of staircase, lift shaft and vertical duct solely serving floor accepted as not being accountable for GFA	PNAP APP-2		
35.	Public passage	PNAP APP-108		
36.	Covered set back area	PNAP APP-152		
Bonus GFA				
37.	Bonus GFA	PNAP APP-108		

Notes:

- 1 Mandatory feature or essential plant room, area of which is limited by respective PNAP or regulation, include duct for basement smoke extraction system, lift machine room, telecommunications and broadcasting room, refuse storage chamber, refuse storage and material recovery chamber, material recovery chamber, refuse storage and material recovery room, or similar feature / plant room, and pipe and air ducts which are part of the distribution network for such mandatory feature or essential plant and contained within such room.
- 2 Mandatory feature or essential plant room, area of which is NOT limited by any PNAP or regulation*, include electrical switch room, meter room, transformer room, generator room, potable and flushing water tank and pump room, sewage treatment plant room, refuse chute, refuse hopper room, room occupied solely by fire service installations and equipment such as fire service / sprinkler water tank and pump room, fire control centre, CO2 room, fan for smoke extraction system / staircase pressurization system, hose reel closet, sump pump room/ pump room for rainwater, soil and waste disposal, or similar feature / plant room and pipe and air ducts which are part of the distribution network for such mandatory feature or essential plant and contained within such room.

- 3 Non-mandatory feature or non-essential plant room, area of which may be disregarded under regulation 23(3)(b) of the B(P)R, include plant room occupied solely by machinery or equipment for air-conditioning or heating system such as AC plant room, air handling unit room, or similar plant room, and pipe and air ducts which are part of the distribution network for such feature or plant and contained within such room.
- 4 Other non-mandatory feature or non-essential plant room, area of which may be exempted under regulation 23(3)(a) of the B(P)R, include hot water boiler room, filtration plant room for swimming pool in a hotel or for a water feature in a communal garden/landscape area, SMATV room, or similar plant room, and pipe and air ducts which are part of the distribution network for such feature or plant and contained within such room.
- 5 Pipe duct, air duct for mandatory feature or essential plant room, include pipe duct for rainwater, soil and waste disposal and individual pipe and air ducts which are part of the distribution network for such mandatory feature or essential plant as described in notes 1 and 2 above, and located outside such plant room.
- 6 Pipe duct, air duct for non-mandatory feature or non-essential plant room, include individual pipe and air ducts which are part of the distribution network for such non-mandatory feature or non-essential plant as described in notes 3 and 4 above and located outside such plant room.
- 7 Plant room for environmentally friendly system and feature, area of which may be exempted under regulation 23(3)(a) of the B(P)R, include plant room for rainwater harvesting / grey water recycling system, battery room for solar panels, or similar system / feature, and pipe and air ducts which are part of the distribution network for such system and feature.
- 8 High headroom and void in front of cinema, shopping arcade etc. in non-domestic development include void in front of cinema, theatre balcony, banking hall, shopping arcade, cockloft floor for storage within the ground storey in single-staircase building, auditorium, sporting hall, school hall and religious institution that have operational justifications.
- 9 Horizontal screen / covered walkway / trellis may be excluded from the overall cap on GFA concessions subject to provision of greenery to BA's satisfaction as stipulated under PNAP APP-42.
- * Although the feature or plant room, area of which is not limited by any PNAP or regulation, only the minimum amount of GFA necessary for accommodating and maintaining the services and commensurate with the the development would be allowed to be disregarded as stated in PNAP APP-2.

(9/2014)

Declaration on Annual Energy Use of a Building Development

樓宇發展項目每年能源消耗量聲明

Part I: Building Particulars

第一部分: 樓宇詳情

(a) Building name 樓宇名稱 (if known 如知悉): (English) _____ (中文) _____

(b) Address of site 地盤地址: (English) _____

(中文) _____

(c) Lot number 地段編號: _____

(d) Type of building 樓宇類型:

* Domestic Building 住宅樓宇 / Non-domestic Building 非住宅樓宇 / Composite Building 綜合用途樓宇

(e) Provision of Central Air Conditioning 提供中央空調 *YES 是 / NO 否

(f) Provision of Energy Efficient Features 提供具能源效益的設施 *YES 是 / NO 否

(g) Please list the * proposed / installed Energy Efficient Features (add separate sheet if necessary)

請列出 * 擬安裝 / 已安裝的具能源效益的設施 (如有需要, 請另頁說明)

English

中文

1. _____
2. _____
3. _____

Part II: Predicted Annual Energy Use^① of * Proposed / Completed * Building / Part of Building第二部分: * 擬興建 / 已竣工 * 樓宇 / 部分樓宇預計每年能源消耗量^①

Type of Development 發展項目類型	Location 位置	Internal Floor Area Served (m ²) 使用有關裝置的內部樓面面積 (平方米)	Annual Energy Use of Baseline Building ^② (m ² /annum) 基線樓宇 ^② 每年能源消耗量 (平方米/年)		Annual Energy Use of Proposed/Completed Building (m ² /annum) 擬 * 興建/已竣工樓宇每年能源消耗量 (平方米/年)	
			Electricity 電力 kWh 千瓦小時	Town Gas / LPG 煤氣 / 石油氣 unit 用量單位	Electricity 電力 kWh 千瓦小時	Town Gas / LPG 煤氣 / 石油氣 unit 用量單位
Domestic Development (excluding Hotel) 住用發展項目 (不包括酒店)	Central building services installation ^③ 中央屋宇裝備裝置 ^③					
Non-domestic Development ^④ (including Hotel) 非住用發展項目 ^④	Podium(s) (central building services installation) 平台 (中央屋宇裝備裝置)					
	Podium(s) (non-central building services)					

(包括酒店)	installation) 平台 (非中央屋宇裝備裝置)					
	Tower(s) (central building services installation) 塔樓 (中央屋宇裝備裝置)					
	Tower(s) (non - central building services installation) 塔樓 (非中央屋宇裝備裝置)					

Note: In general, the lower the estimated “Annual Energy Use” of the building, the more efficient the building in terms of energy use. For example, if the estimated “annual energy use of proposed building” is less than the estimated “annual energy use of baseline building”, it means the predicted use of energy is more efficient in the proposed building than in the baseline building. The larger the reduction, the greater the efficiency.

註：一般來說，樓宇的預計每年每平方米能源消耗量愈低，樓宇的能源消耗愈有效。例如，如果擬興建樓宇的預計每年能源消耗量少於基線樓宇預計的每年能源消耗量，則表示擬興建樓宇的預計能源使用較基線樓宇有效。減少愈多，效能愈大。

Part III 第三部分

The following installation(s) * is / are * designed / completed in accordance with the relevant Codes of Practice published by the Electrical and Mechanical Services Department:-

以下裝置乃按機電工程署公布的相關實務守則 設計 / 完成：-

Type of Installations 裝置類型	YES 是	NO 否	N/A 不適用
Lighting Installations 照明裝置			
Air Conditioning Installations 空調裝置			
Electrical Installations 電力裝置			
Lift & Escalator Installations 升降機及自動梯的裝置			
Performance-based Approach 以總能源為本的方法			

Please (✓) where appropriate 請在適當方格內填上(✓)號

Signature 簽署#
(Registered Professional Engineer 註冊專業工程師/ Registered
Energy Assessor 註冊能源效益評核人)

Certificate of Registration No. 註冊證書編號#

Date of expiry of registration 註冊到期日#

Signature 簽署#
(Authorized Person 認可人士)

Certificate of Registration No. 註冊證書編號#

Date of expiry of registration 註冊到期日#

Company Chop 公司印章/ Signature of applicant 申請人簽署

Date 日期

In accordance with the registration record 根據註冊記錄

* Delete whichever is inapplicable 請刪去不適用者

- ① The predicted annual energy use per m² per annum, in terms of electricity consumption (kWh) and town gas/LPG consumption (unit) of the development by the internal floor area served, where:-
預計每年每平方米能源消耗量〔以耗電量（千瓦小時）及煤氣/石油氣消耗量用量單位〕計算，指將發展項目的每年能源消耗總量除以使用有關裝置的內部樓面面積所得出的商，其中：
- (a) “total annual energy use” has the same meaning of “annual energy use” under Section 4 and Appendix 8 of the BEAM Plus for New Building (current version); and
“每年能源消耗量”與新建樓宇BEAM Plus標準（現行版本）第4節及附錄8中的「年能源消耗」具有相同涵義；及
- (b) “internal floor area”, in relation to a building, a space or a unit means the floor area of all enclosed space measured to the internal faces of enclosing external and/or party walls.
樓宇、空間或單位的“內部樓面面積”，指外牆及/或共用牆的內壁之內表面起量度出來的樓面面積。
- ② “Baseline Building” has the same meaning as “Baseline Building Model (zero-credit benchmark)” under Section 4 and Appendix 8 of the BEAM Plus for New Building (current version).
“基線樓宇”與新建樓宇BEAM Plus標準（現行版本）第4節及附錄8中的“基準建築物模型（零分標準）”具有相同涵義。
- ③ “Central Building Services Installation” has the same meaning as that in the Code of Practice for Energy Efficiency of Building Services Installation issued by the electrical and Mechanical Services Department.
“中央屋宇裝備裝置”與機電工程署發出的《屋宇裝備裝置能源效益實務守則》中的涵義相同。
- ④ Podium(s) normally means the lowest part of the development (usually the lowest 15m of the development and its basement, if any) carrying different use(s) from that of the tower(s) above. For development without clear demarcation between podium(s) and tower(s), the development, as a whole, should be considered as tower(s).
平台一般指發展項目的最低部分（通常為發展項目最低15米部分及其地庫(如適用)），並與其上的塔樓具有不同用途。對於並無明確劃分平台與塔樓的發展項目，應視整個發展項目為塔樓。

(9/2014)

Sustainable Building Design Guidelines

This practice note promulgates guidelines on building design which will enhance the quality and sustainability of the built environment in Hong Kong. These guidelines are the Sustainable Building Design Guidelines (SBD Guidelines) referred to in Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) APP-151, the compliance with which the Building Authority (BA) will take into account, where applicable, as a pre-requisite in exempting or disregarding green and amenity features and non-mandatory / non-essential plant rooms and services from gross floor area and/or site coverage calculations (GFA concessions) for new building developments. Terminology used in the SBD Guidelines is listed in Appendix A.

Objectives

2. The SBD Guidelines establish 3 key building design elements to enhance the environmental sustainability of our living space. They are building separation, building setback and site coverage of greenery. The objectives are to achieve better air ventilation, enhance the environmental quality of our living space, provide more greenery, particularly at pedestrian level; and mitigate the heat island effect.

Building Separation

3. In order to improve air ventilation, enhance the environmental quality at pedestrian level and mitigate heat island effects arising from the undesirable screening effect of long buildings at different levels, building sites of the following categories should comply with the building separation requirements:

- (a) sites that are 20,000m² or above; or
- (b) sites that are less than 20,000m² and proposed with building or group of buildings having a *continuous projected façade length (L_p)* of 60m or above.

4. Building separation requirements for each *assessment zone*:

- (a) Design Requirement (1) – *L_p*

The *L_p* of a building or group of buildings along a *street* should not exceed the maximum permissible¹ which is calculated based on 5 times the *mean width of street canyon (U)*; and

/(b)

¹ See Appendix B for computation of maximum permissible *L_p*

(b) Design Requirement (2) – *Separating Distance (S)* and *Permeability (P)*

- (i) The *P*, comprising a minimum of 2/3 *Intervening Space (IS)* and a maximum of 1/3 *Permeable Element (PE)*, assessed on two vertical projection planes for the two categories of sites should not be less than those as shown in Table 1.
- (ii) Along the chosen projection planes, the *S* for the *IS* between the projected façade of the building and the site boundaries or the centreline of adjoining *streets* / lanes should not be less than 7.5m wide; and
- (iii) If such *IS* are not sufficient to meet 2/3 of the *P*, additional *IS* with *S* not less than 15m wide can be provided between 2 projected building façades for making up.

Table 1

Height (H) of the tallest building	Minimum P of buildings in each <i>assessment zone</i> on two projection planes		
	Site area < 20,000m ² and with L _p ≥ 60m	Site area ≥ 20,000m ²	
		Plane 1	Plane 2
H ≤ 60m	20%	20%	25%
H > 60m	20%	20%	33.3%

5. Detailed requirements and method of measurement on *L_p*, *S* and *P* are given in Appendix B.

6. Standalone residential building blocks of height not exceeding 15m can be exempted from the building separation requirements and disregarded in the assessment of such for other buildings.

Building Setback

7. In order to improve air ventilation, enhance the environmental quality at pedestrian level and mitigate street canyon effect, buildings fronting a *street* less than 15m wide should be set back to comply with one of the following requirements:

- (a) For maintaining a ventilation corridor with minimum section of 15m x 15m, no part of the building up to a level of 15m above the *street* level should be within 7.5m from the centreline of the *street* as shown in Figures C1 and C2 of Appendix C. Where level of a *street* varies, the minimum sectional area should be kept along the full frontage following the profile of the *street*.

/(b).....

- (b) Where a cross-ventilated communal podium garden with a clear height of not less than 4.5m is provided, no part of the building up to a level of 15m above the *street* level, should protrude above the 45° inclined plane, the base of which is placed at *street* level at the site boundary line on the opposite side of the *street* as shown in Figures C3 and C4 of Appendix C.

Typical examples on the application of building setback requirements are given in Figures C5 to C9 of Appendix C.

8. In determining the compliance with the setback requirement, the BA may take into account the following factors:

- (a) Structures higher than 15m above the *street* level may be allowed to build over the setback area². If the setback area is uncovered, a canopy that complied with regulation 10 of the B(P)R may be permitted;
- (b) Minor projecting features and signboards projecting not more than 600mm from the external walls and at a clear height of not less than 2.5m above the *street* level; and single-storey footbridges across the setback area may also be permitted;
- (c) Columns supporting the building above may be permitted within the setback areas subject to requirements as shown in Figure C2 of Appendix C; and
- (d) The setback area should be properly landscaped and paved, and be open without any permanent building structures other than landscaped features, perforated balustrades, perforated boundary walls and structural columns.

9. Buildings may be exempted from whole or parts of the building setback requirement with reference to a *street* where its height³ is less than 2 times the mean width of the *street*.

Site Coverage of Greenery

10. In order to improve the environmental quality of the urban space, particularly at the pedestrian level and to mitigate the heat island effect, sites with areas of 1,000m² or more should be provided with *greenery areas* in accordance with Table 2. Detail guidelines are provided in Appendix D.

/Table....

² The setback area at ground level under the footprint of such structures or the covered areas under the canopy may be exempted from GFA calculation if it is designated as common parts accessible by occupants of the building and without any commercial activities.

³ Height of the building in this context is measured from the mean level of the *street* on which the building abuts to the mean height of the roof over the highest usable floor space in the building.

Table 2

Site Area	Minimum Site Coverage of Greenery	
	<i>Primary zone</i>	Overall
1,000 m ² – 20,000 m ²	10%	20%
≥ 20,000 m ²	15%	30%

11. This requirement is not applicable to sites with a single family house only.

Special Considerations

12. There are special circumstances in which genuine difficulties in complying with the SBD Guidelines may be encountered. Examples include new buildings serving special functions such as ferry piers, railway terminals, stadia; and conversion of existing buildings to new buildings especially the adaptive reuse of historic buildings where building façades or even layout are character defining elements. In recognition of such genuine constraints in meeting the prescriptive requirements, the BA takes a flexible and pragmatic stance when considering applicants' proposals holistically to achieve the objectives of the SBD Guidelines. Alternative approaches are provided in Appendix E.

Conditions for Approval

13. PNAP APP-151 specifies the compliance with the SBD guidelines as one of the pre-requisites for granting GFA concessions. When granting such modifications under section 42 of the Buildings Ordinance, the BA may impose relevant conditions for assuring the sustainability of the approved building design.

Information to be Submitted

14. To demonstrate compliance with the building separation, building setback and site coverage of greenery requirements, information as detailed in Appendix F should be submitted.

15. To increase the transparency of information to the public, plans and details showing the site coverage of greenery as described in Appendix F will be uploaded to the BD's website after the occupation permit is issued.

(HUI Siu-wai)
Building Authority

Ref. : BD GR/1-55/187/1
BD GP/BREG/P/49

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Terminology

<i>Air Ventilation Assessment (AVA)</i>	<i>Air ventilation assessment (AVA)</i> is a protocol to objectively assess the effects of planning and development proposals on external air movement for achieving a better pedestrian wind environment. An advisory framework for the methodology to undertake <i>AVA</i> has been outlined in the Technical Guideline for Air Ventilation Assessment available in the Planning Department's website under the Hong Kong Planning Standard and Guidelines.
<i>Assessment Zones</i>	<i>Assessment zones</i> demarcate the vertical spatial division for assessing fulfilment of the building separation requirement. The zonal division consists of low zone (within 20m from level zero), middle zone (20-60m from Level Zero) and high zone (higher than 60m from Level Zero). [Building Separation]
<i>Computational Fluid Dynamics (CFD)</i>	<i>CFD</i> is a branch of fluid mechanics using numerical methods and algorithms to solve and analyze problems that involve fluid flows. Computers are used to perform the millions of calculations required to simulate the interaction of fluids and gases with the complex surfaces used in engineering.
<i>Continuous projected facade length (L_p)</i>	The total projected length of facade of a building or a group of buildings if separation between them is less than 15m. (see Figures B2 & B3 of Appendix B) [Building Separation]
<i>Grass paving</i>	Paving having not less than 50% of floor designed for the growth of grass or groundcovers. [Site Coverage of Greenery]
<i>Greenery area</i>	Area with live plants and soil or similar base. Such area may include other greening features as per Appendix D. [Site Coverage of Greenery]
<i>Intervening Space (IS)</i>	Space that is open to above or have a clear height of not less than 2/3 of the height of the respective assessment zone. [Building Separation]
<i>Level Zero</i>	The mean <i>street</i> level on which the site abuts or where the site abuts <i>streets</i> having different levels, the mean level of the lower or lowest <i>street</i> . [Building Separation]
<i>Mean Width of Street Canyon (U)</i>	The mean distance between (i) an external wall of the subject building which is within 30m perpendicular from the centre line of a <i>street</i> and (ii) the boundary of the other site on the opposite side of the <i>street</i> , as shown in Figures B4 to B7 of Appendix B. It forms the basis for assessing the maximum permissible L _p of the building in the assessment zone, which is 5xU. [Building Separation]
<i>Primary Zone</i>	The 15m vertical zone of a site along the abutting street level. The greenery in this zone is for providing visual contacts or access from a street through common parts of the building for enhancing the walkability of urban space to the public, visitors or occupiers. The top level of soil or similar base for planting should be taken as the reference level for inclusion in the Primary Zone. [Site Coverage of Greenery].
<i>Permeability (P)</i>	A percentage indicating how permeable a building or group of buildings in that assessment zone is. It is obtained by dividing the sum of the areas recognized as <i>intervening space</i> or <i>permeable elements</i> by the area of the assessment zone as shown in Figure B9 of Appendix B. [Building Separation].
<i>Permeable Element (PE)</i>	Space provided within, above, below or between buildings within the same site

with a minimum clear width and clear height of 3m as projected onto the chosen projection plan, e.g. refuge floors, communal sky gardens etc. [Building Separation]

Separating Distance (S)

This is the minimum width of an *IS* in the following scenarios:-

- (i) between end of the projected building façade and the site boundary;
- (ii) between end of the projected building façade and the centerline of adjoining *street*/lane where the site abuts; or
- (iii) between 2 projected building facades.

Where such distance varies for an *IS*, the method of arriving at the mean of such distance is shown in Figure B12 of Appendix B.

[Building Separation]

Site Coverage of Greenery

The percentage of total live *greenery area* divided by the area of the site.

Street

A *street* of width not less than 4.5m vested in the Government and maintained by the Highways Department or a private street on land held under the same Government lease as the site and under the terms of the lease, the lessee has to surrender (when required to do so) the land on which the street is situated to the Government, as described under B(P)R18A(3)(a)(i) & (ii). [Building Separation and Building Setback]

Vertical greening

Greenery that grows within the primary zone on a vertical surface abutting a street or public pedestrian way/public open space accessible from a street, and the top level of the soil or similar base including the frame for greenery is within the primary zone. [Site Coverage of Greenery]

Building Separation Requirements

1. Assessment and Method of Measurement

1.1 The design of building(s) above *Level Zero* of the site shall comply with the Design Requirements (1) and (2) below. They shall be assessed separately for each of the three *assessment zones* i.e. the low, middle and high zones.

1.2 In general, all measurements for building separation are taken from the external walls of the building. Minor building features that will not materially affect air ventilation around buildings, including single-storey footbridges across buildings (not shadowed vertically by other footbridges), signboards, minor projecting features as described in paragraph 3 of PNAP APP-19, open sided features such as balconies, utility platforms, covered walkways, trellises and other highly permeable features such as railing and perforated fence walls (with free area $\geq 2/3$ or equivalent) may be disregarded in the building separation assessment. Minor noise barriers that are not extensive in height and designed to permit air flow through or over the barriers may also be disregarded subject to the provision of appropriate building features or permeable elements such as communal podium gardens to compensate for the barrier's obstruction to free air flow to the satisfaction of the BA.

1.3 Effect on air ventilation around buildings due to topographical features in a site including any slope features and retaining walls may be disregarded. Any parts of a building that are below the original site topography may therefore be disregarded from the *assessment zone* (see Figure B1).

2. Design Requirement (1) - L_p of building(s) abutting a street

2.1 Design Requirement (1) controls the maximum L_p of a building or a group of buildings if any part of the building is within 30m from the centreline of the *street* on which the building(s) abuts.

2.2 The L_p of a building or a group of buildings along its long side shall not exceed the maximum permissible L_p which is obtained by multiplying 5 and the U on which the building(s) abuts. The U of such a street canyon in the *assessment zone* is measured perpendicular to the centreline of the *street* from the external wall of the building that is within 30m from the centreline of the *street*, to the site boundary of the other site on the opposite side of the *street* (see Figures B2 to B6). If the building or group of buildings abuts two or more *streets* having different U , the least U shall be adopted.

2.3 If the width of a street canyon varies (on plan), U is the width obtained by dividing the area of such a street canyon by its length as measured along the centreline of the *street*. If only a part of the building is within 30m from the centreline of the *street*, U is the mean width of the street canyon that abuts such part of the building. If there is more than one such street canyon along the same *street*, U is the width obtained by dividing the sum of the areas of such street canyons by the sum of the lengths, as measured along the centreline of the *street*, of such street canyons (see Figure B7).

2.4 For the purpose of measuring L_p of a building or a group of buildings along its long side, the part of the building(s) that is within the low zone and of a height of not more than 6.67m (i.e. 1/3 of 20m which is the height of the low zone) may be disregarded.

2.5 Maximum permissible L_p is not applicable for Design Requirement (1) in the following circumstances:

- (a) The subject site does not abut a *street*;
- (b) There is no building or no parts of building in the *assessment zone* within 30m from the centreline of any *streets* on which the site abuts.

3. Design Requirement (2) - S & P of Buildings (Projection Planes for Assessment)

3.1 Assessment on compliance with Design Requirement (2) shall be made through a pair of vertical projection planes (x, y) at an orthogonal relationship to each other (see Figure B8). At least one of the projection planes for the low zone shall be set parallel to a *street* on which the site abuts. For a site that abuts on a curvilinear *street*, the projection plane for the low zone shall be set along any tangent of the *street*. For the middle/high zones, such pair of projection planes may be set to suit the building disposition or the site wind environment.

3.2 To allow more flexibility in building design, the angle between each pair of projection planes may vary from 75 to 105 degrees.

3.3 For a site that is less than 20,000 m² and the total width of all projected building facades exceeds 60m along one projection plane only, assessment on compliance with Design Requirement (2) is only required for that projection plane.

4. Assessment of S and P

4.1 Elevation of all buildings within the site shall be projected onto the chosen projection planes. On each projection plane, the required P of buildings as stipulated in Table 1 of this PNAP shall be achieved (see Figure B9).

4.2 Not less than 2/3 of the required P shall be provided by IS between the ends of the projected building facades and the adjacent site boundaries or, where the site abuts a street or a lane, the centreline of adjoining *street* or lane¹. Save for the part of building disregarded in paragraph 2.4 above, such IS shall provide a S of not less than 7.5m wide. For S involving site boundary or adjoining street/lane, if it varies on plan, the mean of S shall not be less than 7.5m and no part of the building shall be within 3m from the boundary line. If such IS cannot meet 2/3 of the required P , additional IS can be provided between buildings. Such additional IS shall have an S of not less than 15m (see Figures B10 to B12).

¹ The *street*/lane of width less than 4.5m may also be included in the assessment of S and P . Open space outside the site boundary is not accountable for P . However, where an area is zoned as open space on the Outline Zoning Plan / Development Permission Area Plan and provided such area is a nullah or designated as promenade or non-building area on the aforesaid plan and / or in the explanatory notes of the aforesaid plan, such area may be treated as a lane for the purpose of assessing S and P .

4.3 Not more than 1/3 of the required *P* may be provided by *PE*. (see Figures B10 & B11)

4.4 To allow more design flexibility, the projection line of the *IS* within an *assessment zone* may follow the path of a notional air corridor that starts at 90° from the projection plane (on plan). The air corridor may flow between buildings and may change direction without changing its width, when it meets the boundary line or anywhere within the site, by not more than 15° provided the direction of the air corridor after the change of course is always within 15° from its original path before it enters the site. The minimum width of the air corridor along its path between buildings shall not be less than 15m (see Figures B13 to B16).

4.5 When the site is large and / or of irregular shape, the site may be subdivided into two or more notional sites provided that the line of the sub-division is located along the centreline of a notional wind path that complies with the following requirements:

- (a) the wind path is open to above from the lowest level of the subject *assessment zone* (disregarding the minor projecting features and permeable features mentioned in paragraph 1.2 above);
- (b) it is of a width of not less than 15m;
- (c) it is continuous across the site in one direction or it may change in direction by not more than 15 degrees provided its direction after the change of course is always within 15 degrees from its original path²;
- (d) where it meets the site boundaries, there is a street or lane with a mean width of not less than 7.5m.

4.6 After subdividing the site, the *P* may be assessed separately for each subdivided site using the same or a different pair of orthogonal projection planes (see Figures B17 & B18).

4.7 A sample case on assessment of building separation provisions is given in Figures B19 to B21.

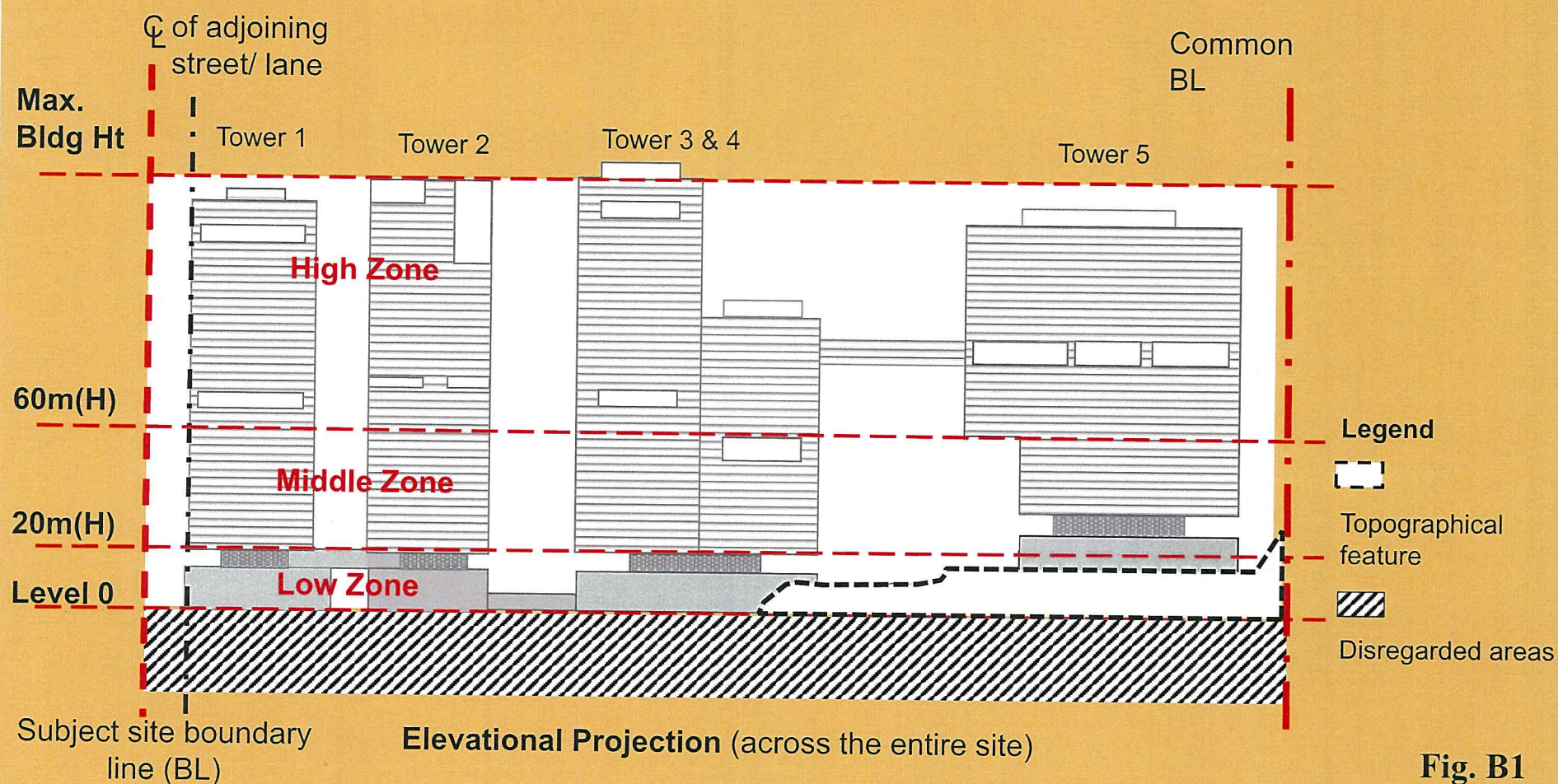
(Rev. 1/2016)

² The wind path should preferably align with the summer prevailing wind direction or existing street pattern.

Site Topography & Sunken Buildings

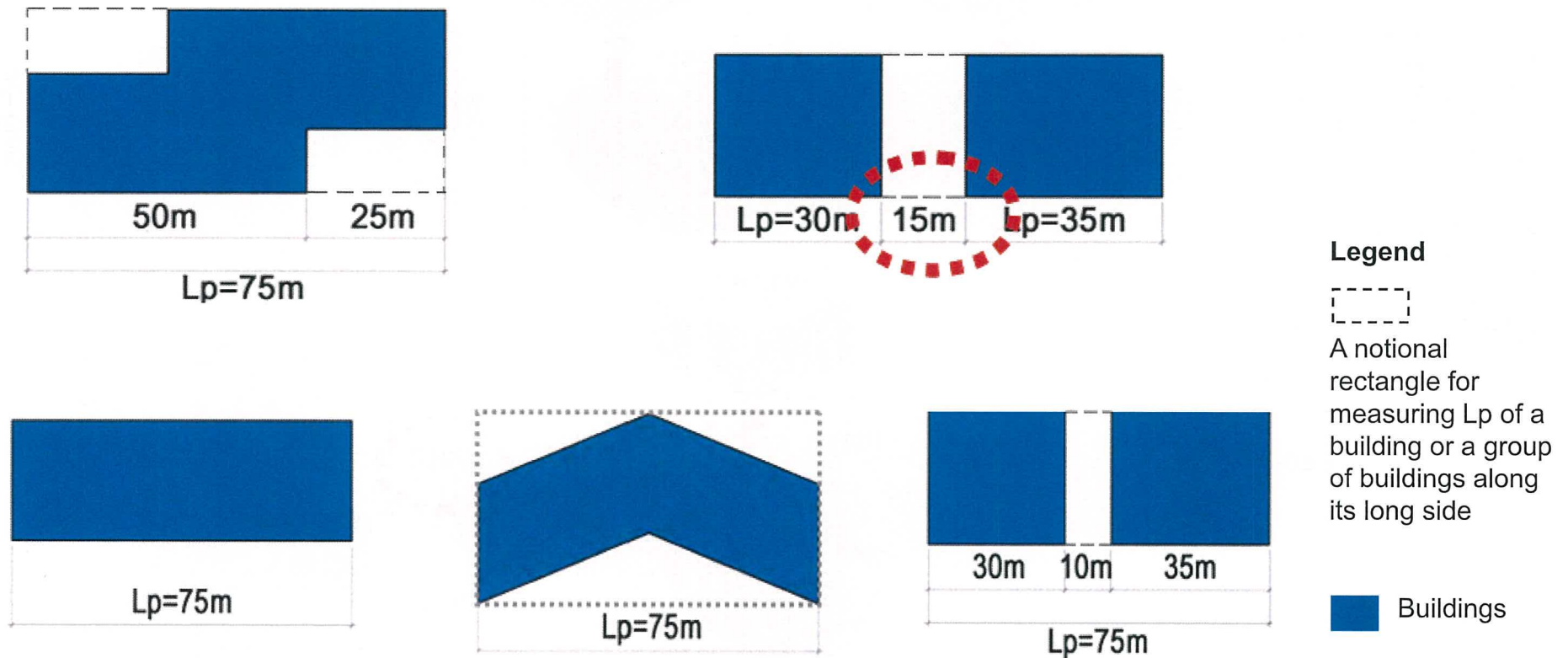
Appendix B
(PNAP APP-152)

- "Level Zero" is the mean level of the lower or lowest street(s).
- The height of a building shall be measured from Level Zero to the mean height of the roof over the highest usable floor space.
- The effect on air ventilation around buildings due to topographical features or sunken part of a building below Level Zero shall be disregarded. (See Fig.B9-Fig.B11)



L_p Examples of determining L_p

- Building portions at low zone of height $\leq 6.67\text{m}$ ($1/3H$ of low zone) are disregarded in L_p measurement

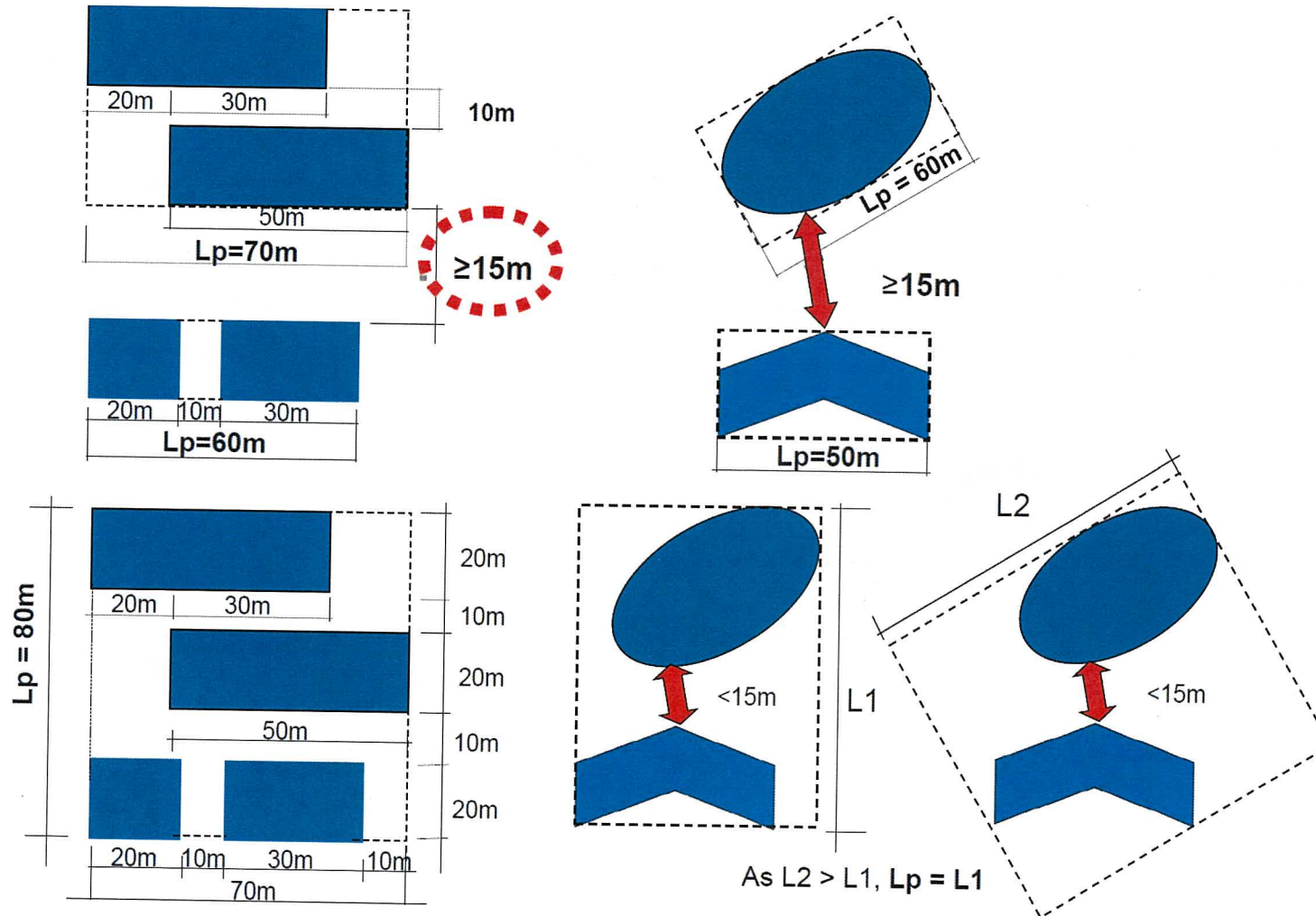


Diagrammatic Plans of Buildings

Fig. B2

Lp Examples of Lp of a building or group of buildings along its long side

Appendix B
(PNAP APP-152)



Legend



- A notional rectangle for measuring L_p of a building or a group of buildings along its long side.
- Where the building or a group of buildings is irregular in shape, the notional rectangle may be the smallest rectangle that contains the building or group of buildings.

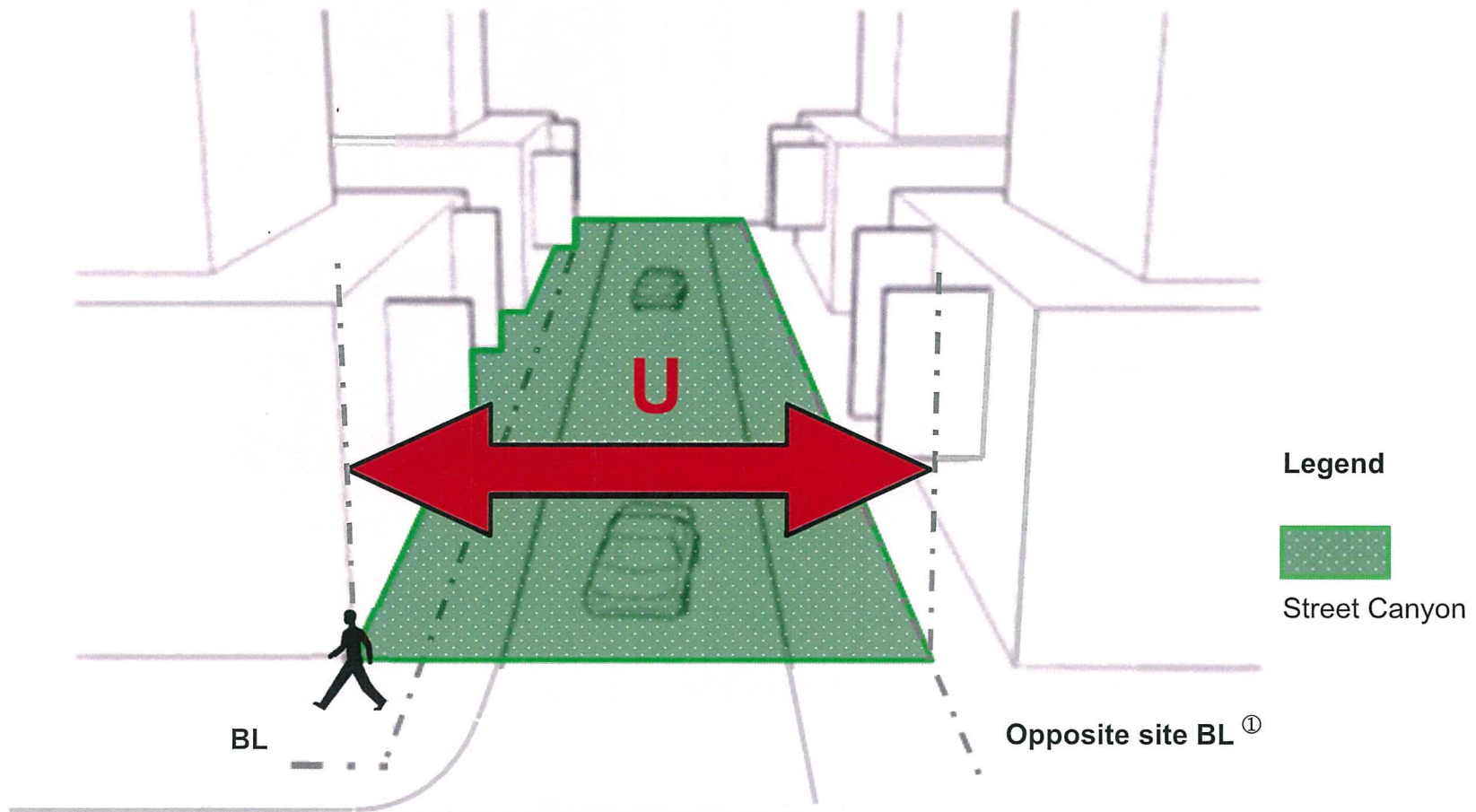
Buildings

Diagrammatic Plans of Buildings

Fig. B3

Showing U

- Street canyon shall be vertically unobstructed. Minor projecting features, such as signboard, a covered footbridge and open sided features (balconies, utility platforms, covered walkways, trellises, etc.) may be disregarded.



① Opposite side of the street if no opposite site

Perspective Showing Width of Street Canyon

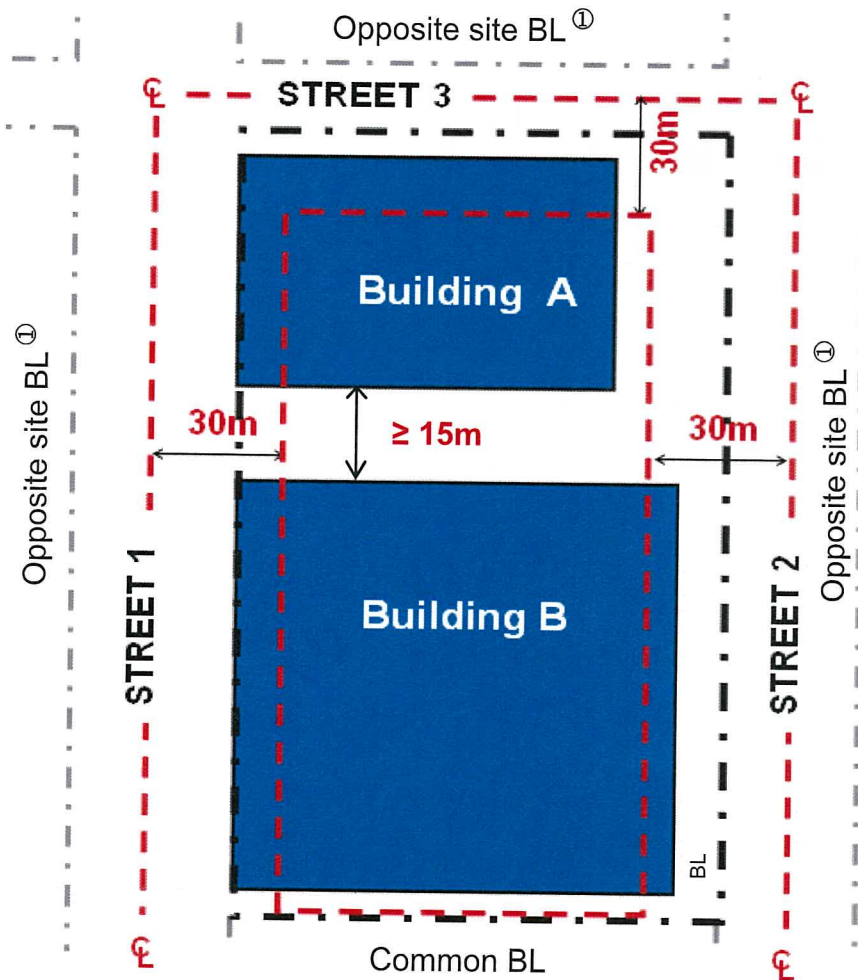
Fig. B4

Adjoining Street Canyons

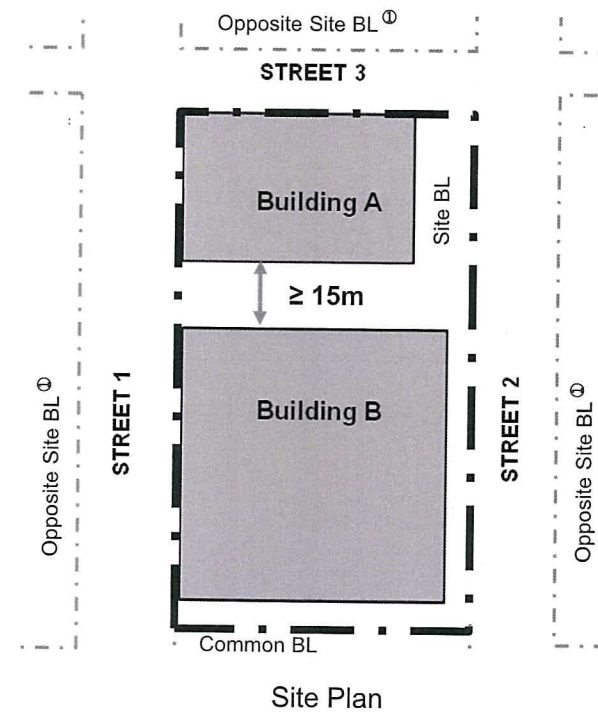
Appendix B
(PNAP APP-152)

Buildings subject to control on Lp

- Buildings/groups of buildings wholly or partly **within 30m** from the centreline of an adjoining street.



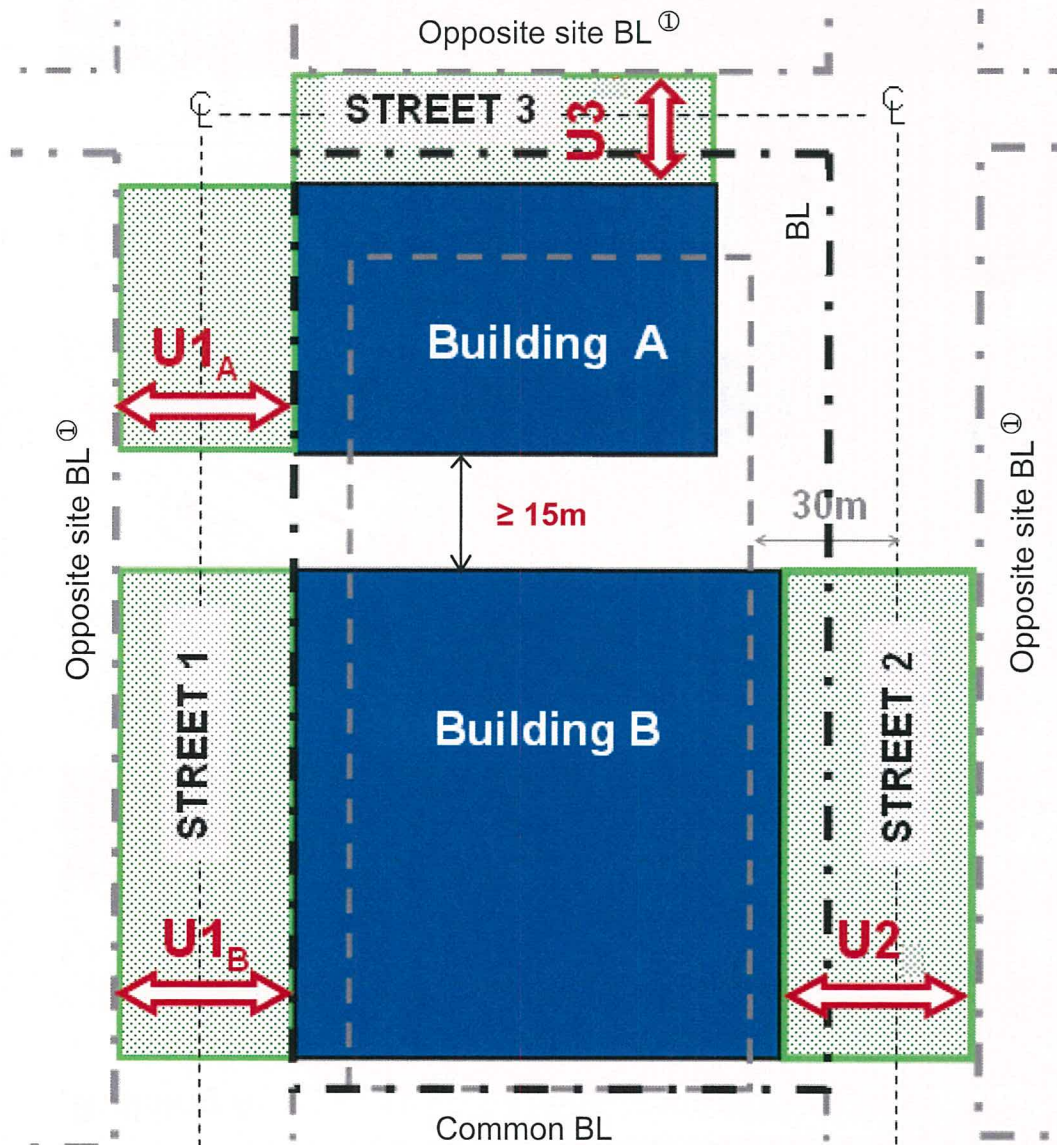
① Opposite side of the street if no opposite site.



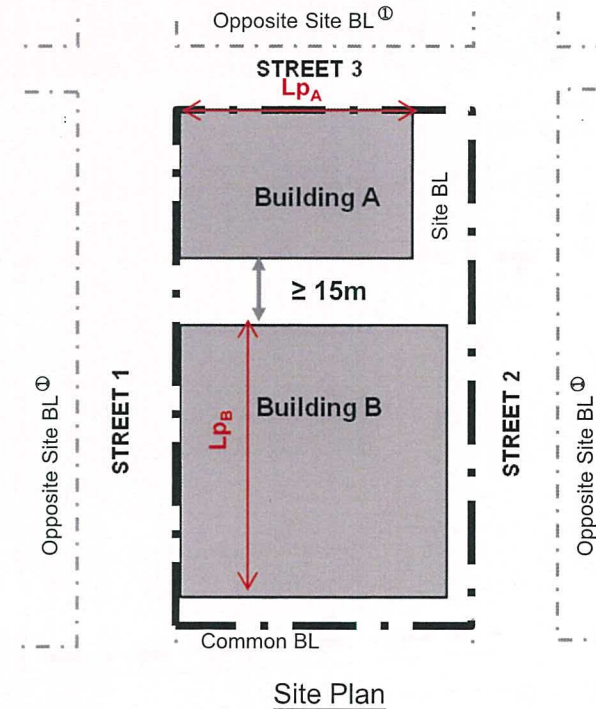
Diagrammatic Plans

Fig. B5

U & Max. Permissible Lp



① Opposite side of the street if no opposite site.



Site Plan

Max. $L_p = 5 \times U$

- If a building abuts two or more streets, use the least U.

• Building A

When $U_3 < U_{1A}$, max. $L_{pA} = 5 \times U_3$

• Building B

When $U_{1B} < U_2$, max $L_{pB} = 5 \times U_{1B}$

Fig. B6

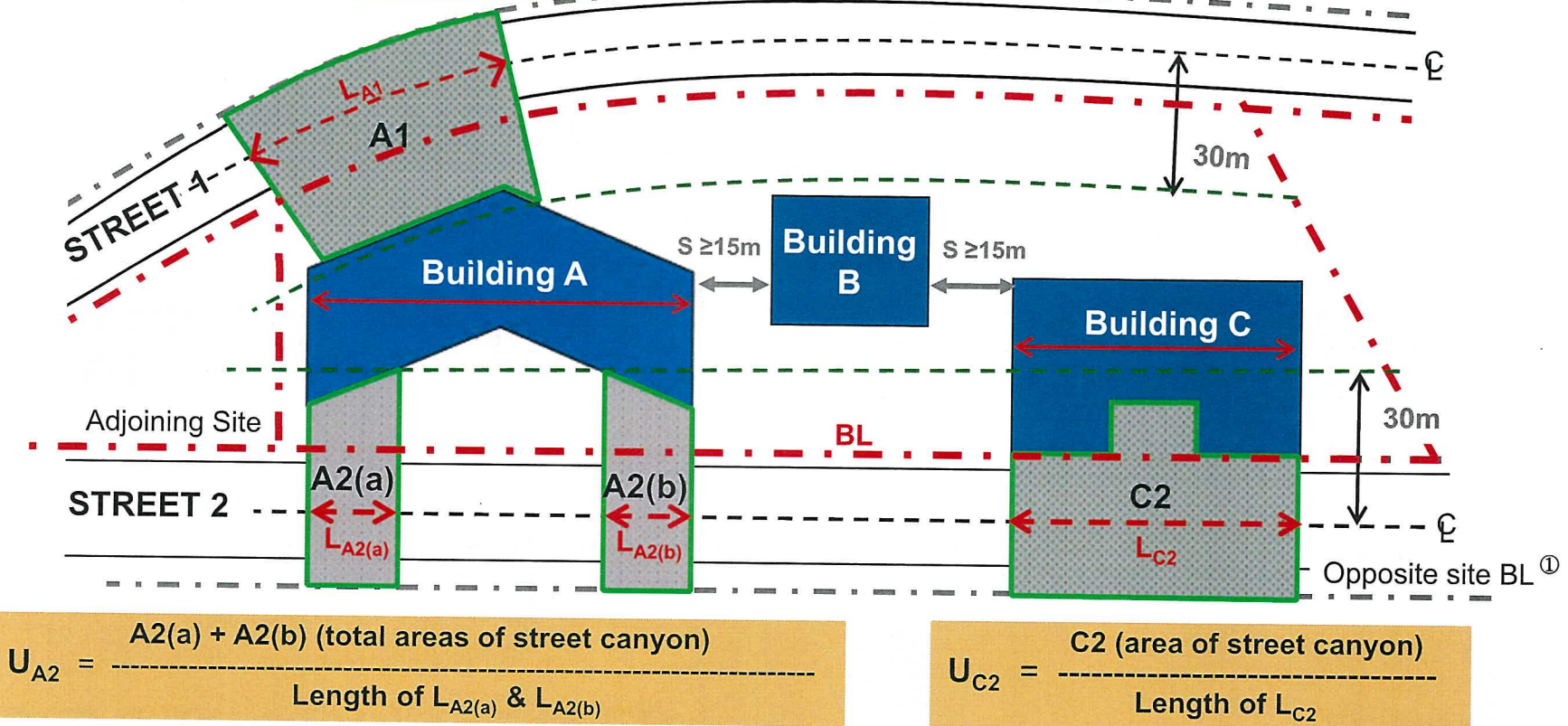
Diagrammatic Plans

U & Max. Permissible Lp

Building A

- When width of the adjoining street canyon varies, Lp is determined by the smallest U.
- When $U_{A1} < U_{A2}$, max. $L_{pA} = 5 \times U_{A1}$

$$U_{A1} = \frac{A1 \text{ (area of street canyon)}}{\text{Length of } L_{A1}}$$



$$U_{A2} = \frac{A2(a) + A2(b) \text{ (total areas of street canyon)}}{\text{Length of } L_{A2(a)} \text{ \& } L_{A2(b)}}$$

$$U_{C2} = \frac{C2 \text{ (area of street canyon)}}{\text{Length of } L_{C2}}$$

① Opposite side of the street if no opposite site.

Diagrammatic Plan Fig. B7

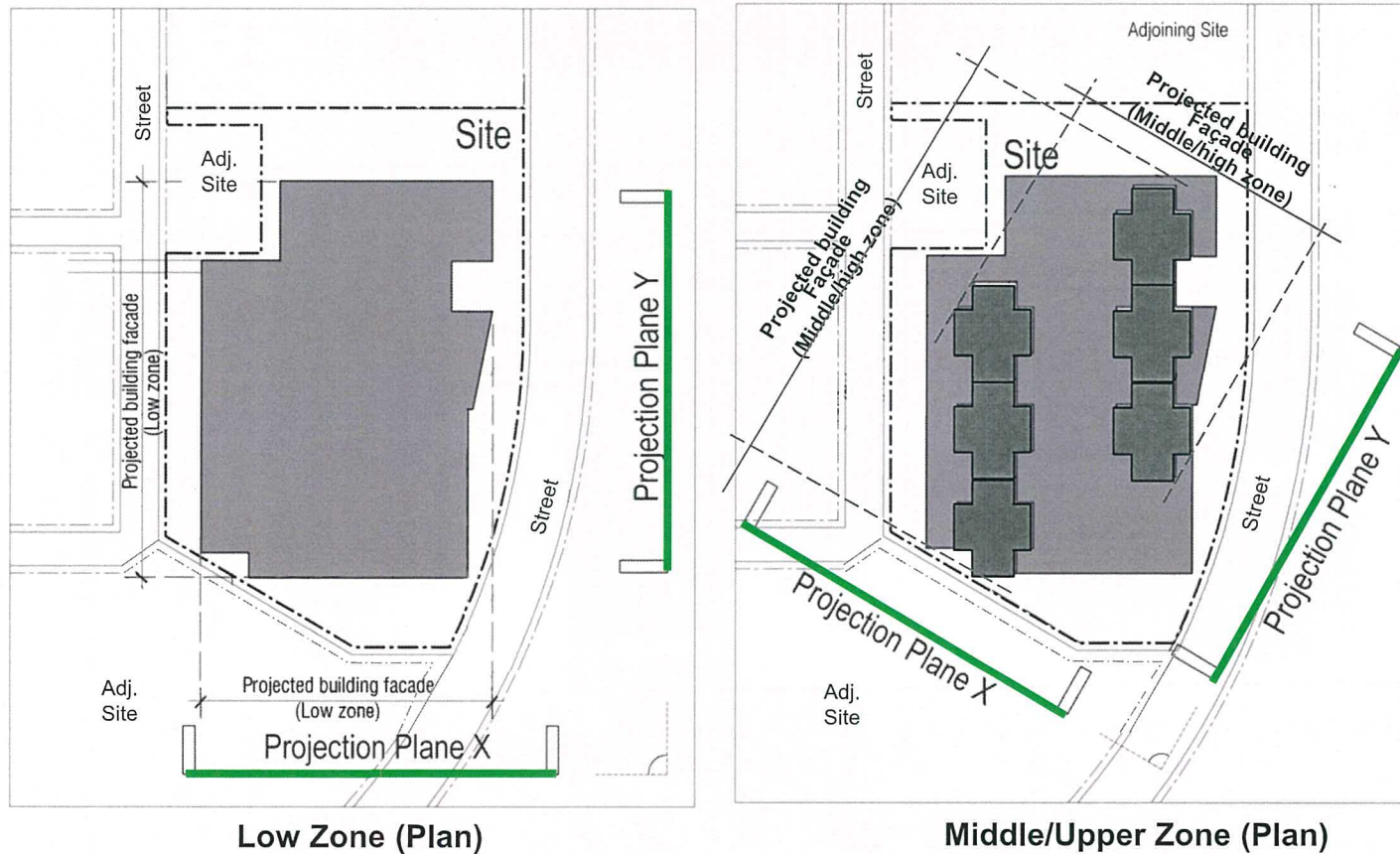
Building B

- No part of the building is closer than 30m to the street centrelines. Building B is not subject to Design Requirement (1).

Building C

- Lp is determined by the U at Street 2:
- $L_{pC} = 5 \times U_{C2}$

Pair of Projection Planes for Assessment of P



Low Zone

- One of the planes^① parallel to an adjoining street

Middle/High Zone

- Any pair of chosen planes^① to suit the building disposition or environmental context e.g. prevailing wind direction

P assessment on one plane only if:

- Site < 2ha and $L_p > 60\text{m}$ on one projection plane only.

^① The angle between each pair of projection planes is **75-105°**.

Fig. B8

Assessment of P

Appendix B
(PNAP APP-152)

$$P = \frac{\text{Sum of areas of IS and PE}}{\text{Area of the assessment zone}} \times 100\%$$

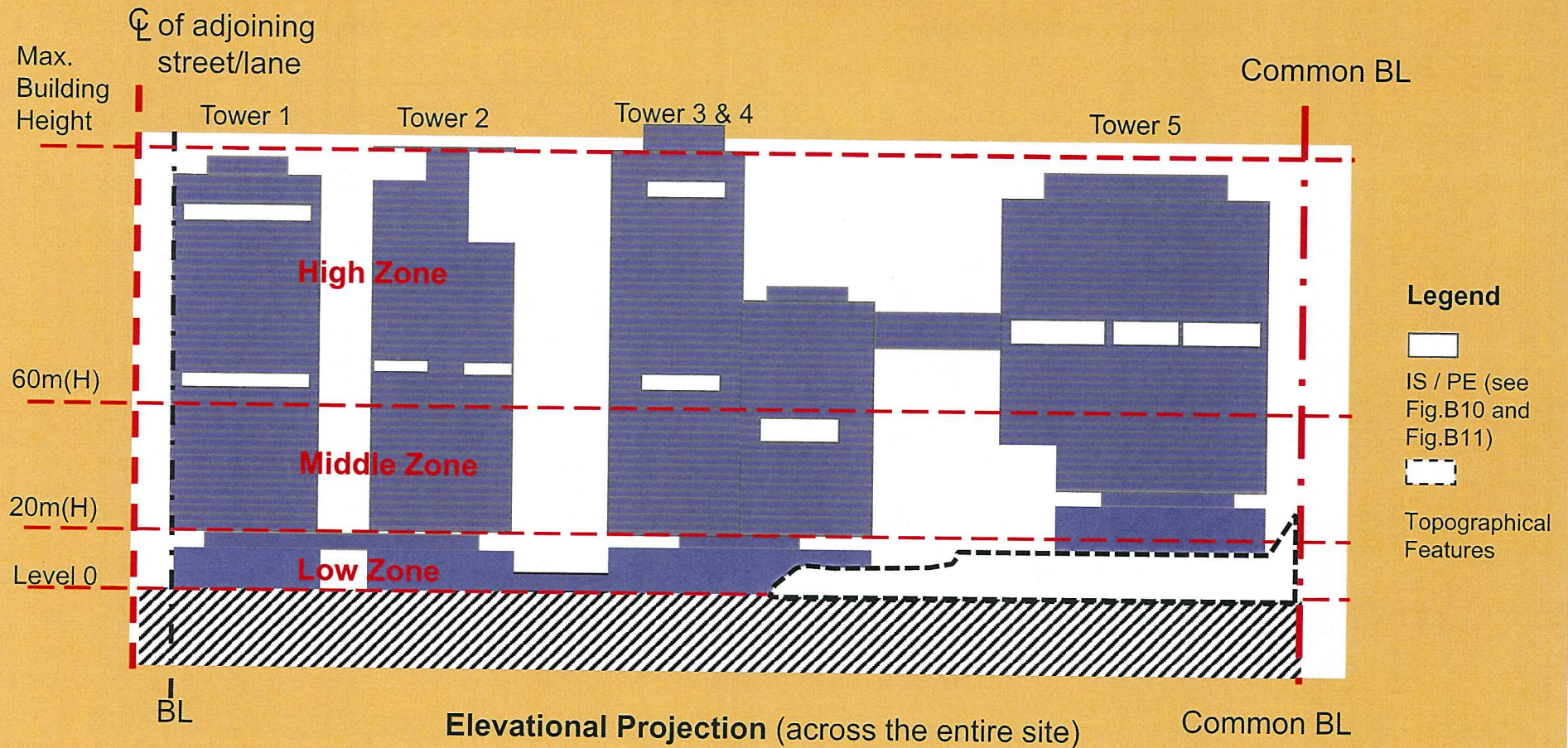


Fig. B9

IS & PE

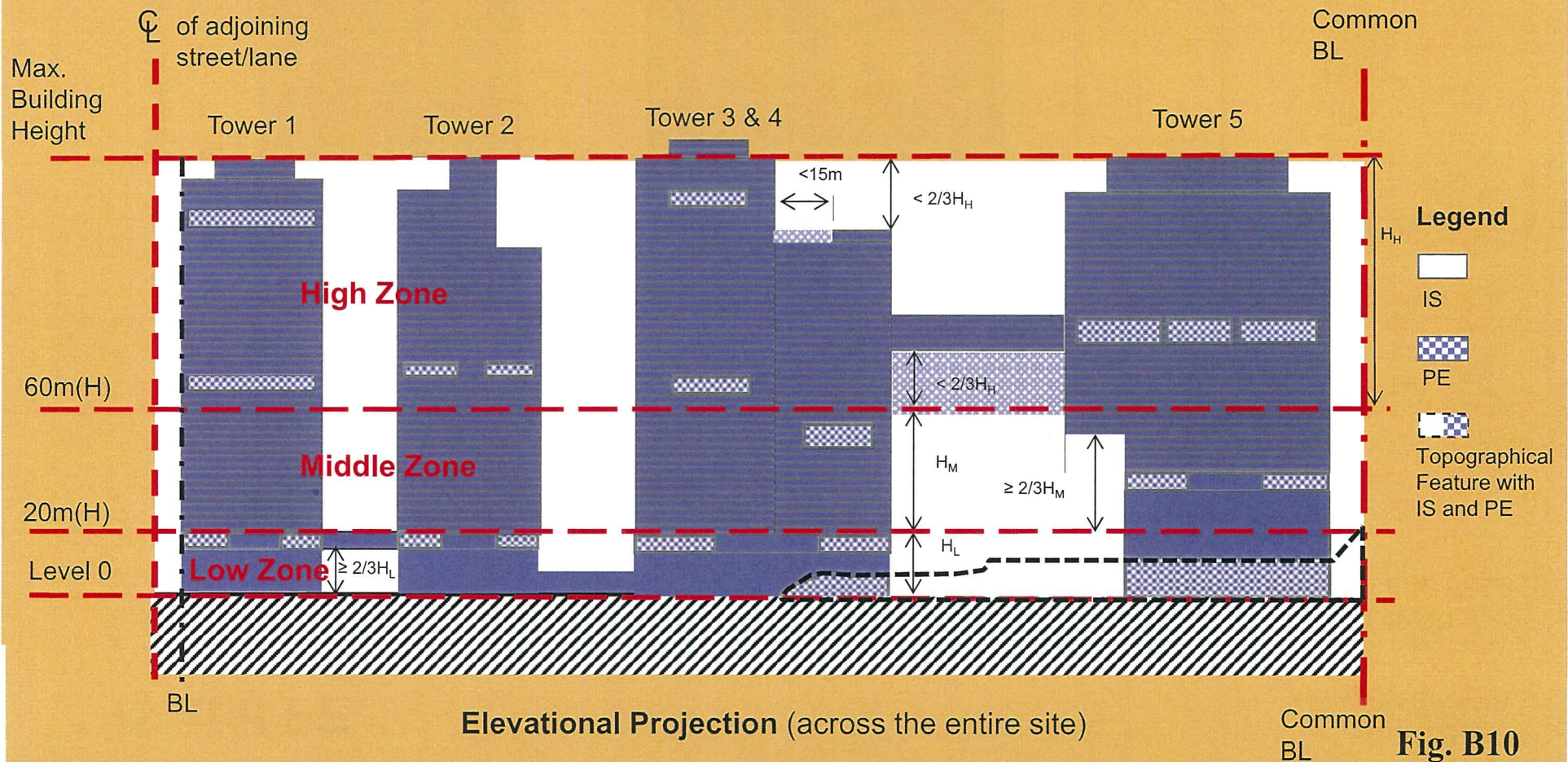
Appendix B
(PNAP APP-152)

IS shall account for min. 2/3 of the required P

PE may contribute to maximum 1/3 of the required P

$$\frac{\text{Sum of areas of IS}}{\text{Area of the assessment zone}} \times 100\% \geq 2/3 P$$

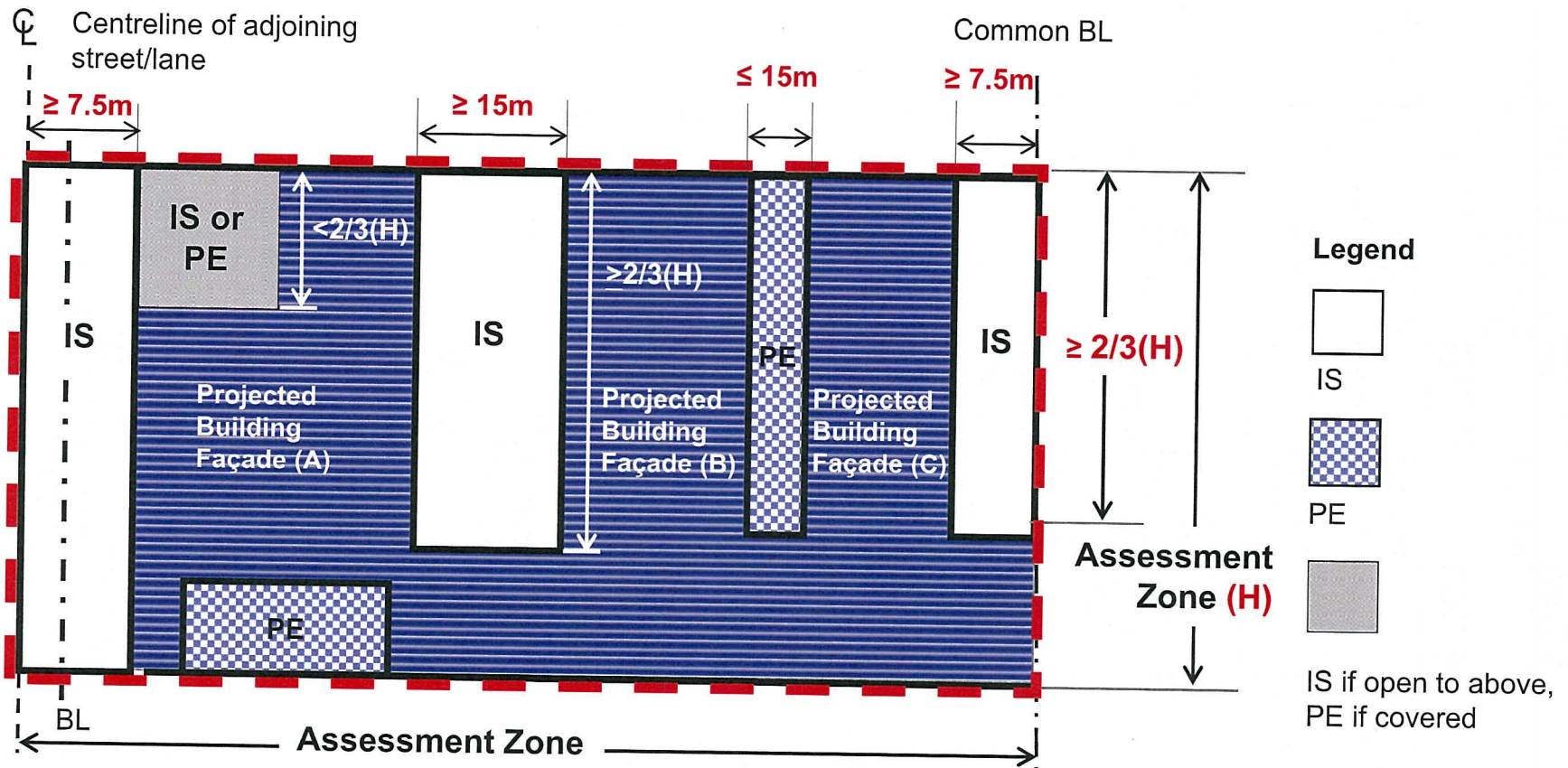
$$\frac{\text{Sum of areas of PE}}{\text{Area of the assessment zone}} \times 100\% \leq 1/3 P$$



IS and PE

Appendix B
(PNAP APP-152)

- IS shall be provided between end of a projected façade and adjacent common BL / centreline of adjoining street/lane and has a width or mean width $\geq 7.5\text{m}$ (see Fig.B12, Fig.B14, Fig.B15 and Fig.B16).
- Additional IS between end of projected façades shall be $\geq 15\text{m}$.
- Height of IS shall be $\geq 2/3H$ of the Assessment Zone or open to above.
- PE shall have clear width and clear height $\geq 3\text{m}$.



Elevational Projection (across the entire site)

Fig. B11

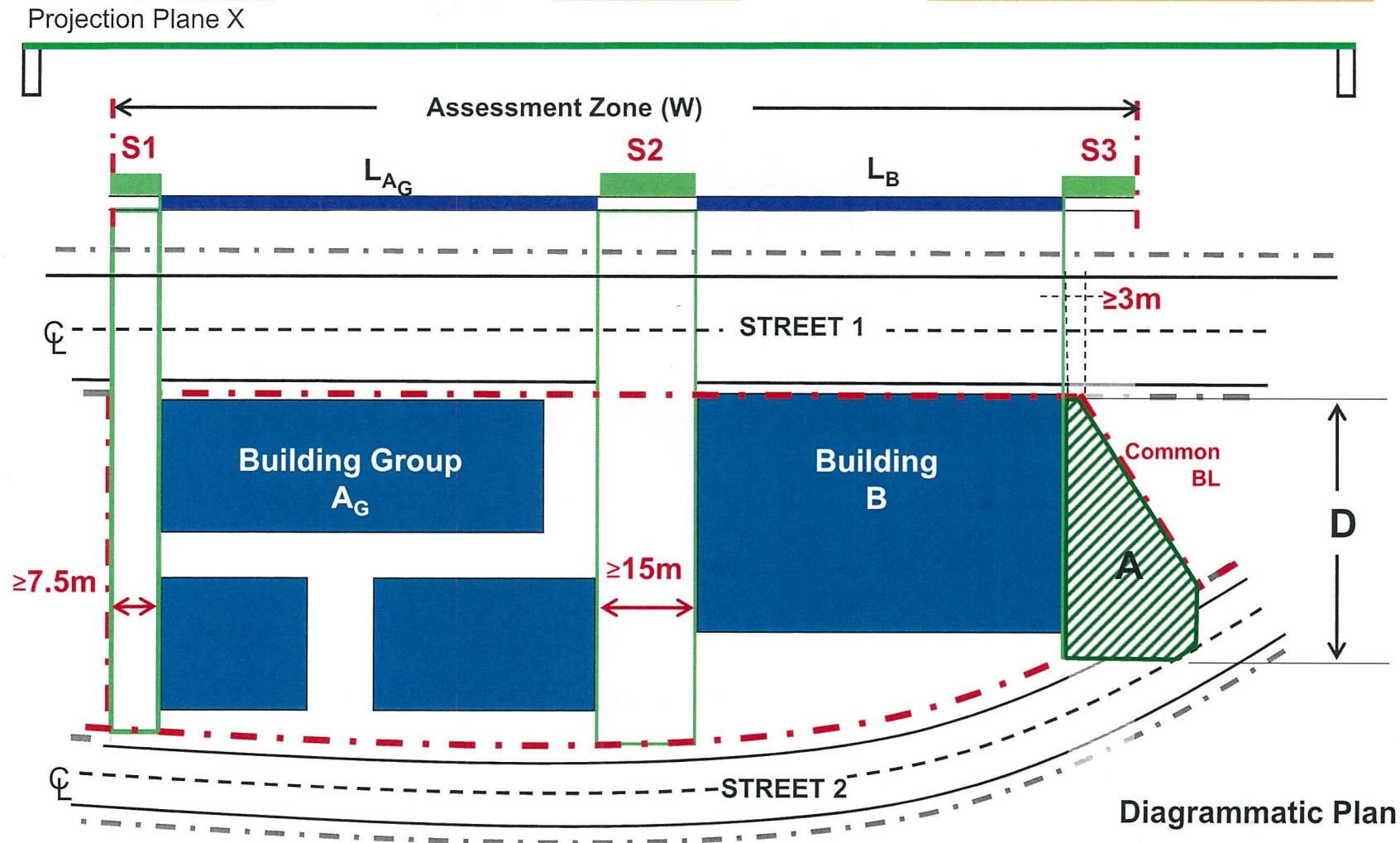
Assessment of S

Appendix B
(PNAP APP-152)

$$S1 \geq 7.5m$$

$$S2 \geq 15m$$

$$S3^{①} = \frac{\text{Area (A)}}{\text{Depth (D)}} (\geq 7.5m)$$



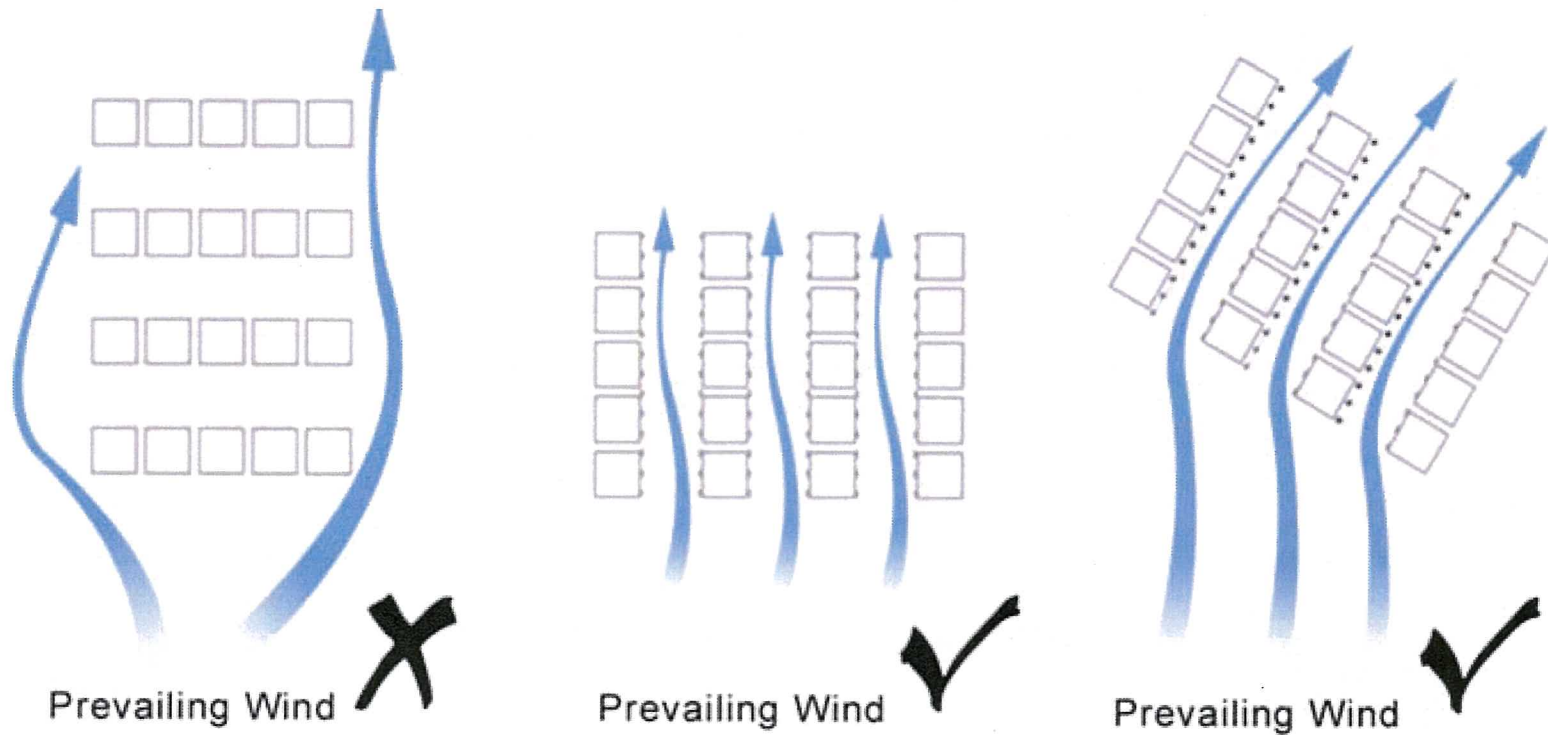
① No part of the building within 3m from the BL.

Fig. B12

Notional Air Corridor

Provided that the minimum required width of the IS / notional air corridor is maintained,

- Change in direction is permissible $\leq 15^\circ$ when it meets the BL or anywhere within the site, and
- Overall direction deviate $\leq 15^\circ$ from the original path



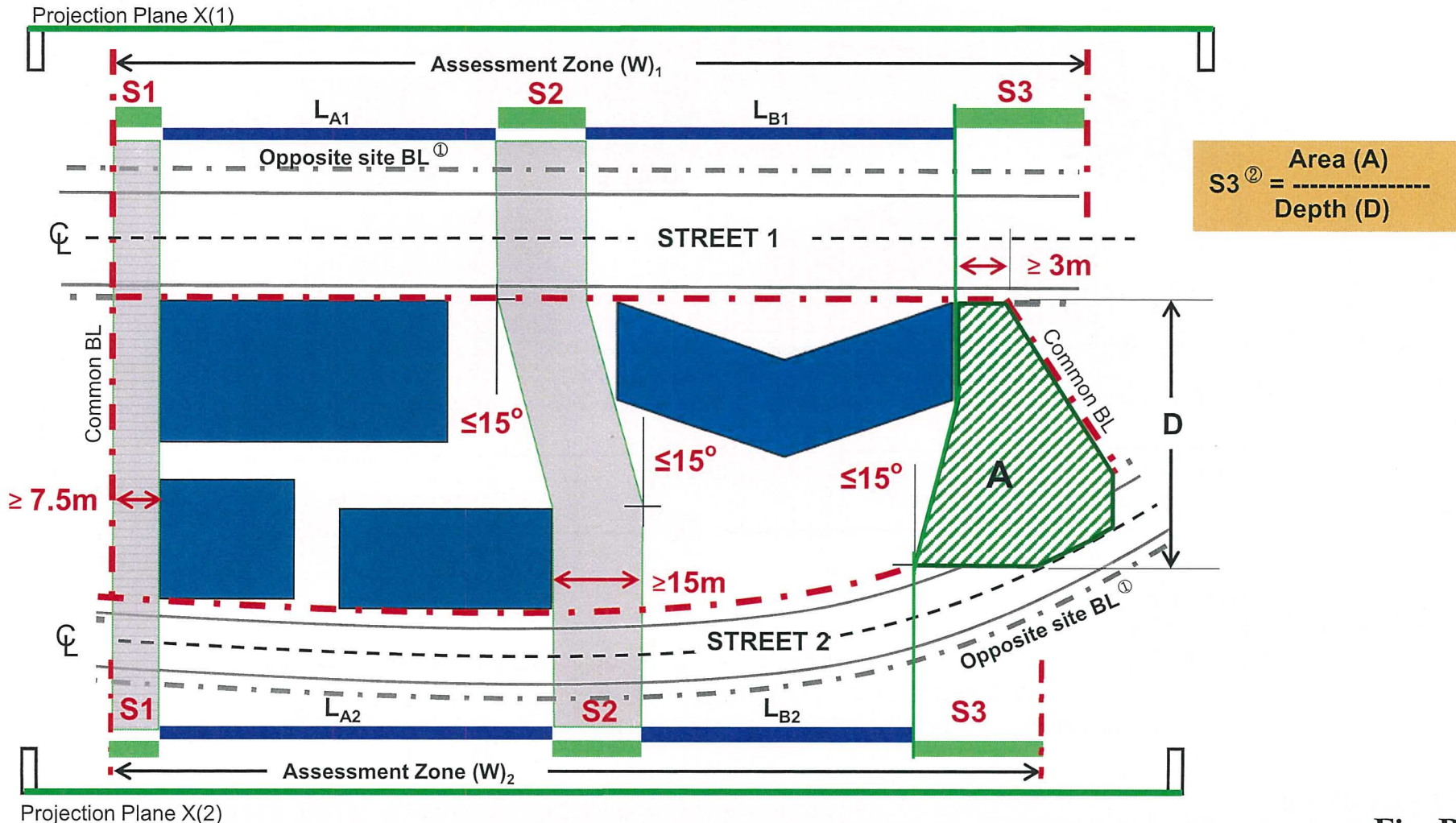
Diagrammatic Plan

Fig. B13

Notional Air Corridor S between buildings & at façade ends

Appendix B
(PNAP APP-152)

- When projection plane X is placed on either side of the site, length of a building façade so projected on the planes may vary.
- Assessment of P may be based on the projection on either Plane X(1) or X(2).
- S1 & S3^② $\geq 7.5\text{m}$.
- S2 $\geq 15\text{m}$



- ① Opposite side of the street if no opposite site.
② No part of the building within 3m from the BL.

Diagrammatic Plan

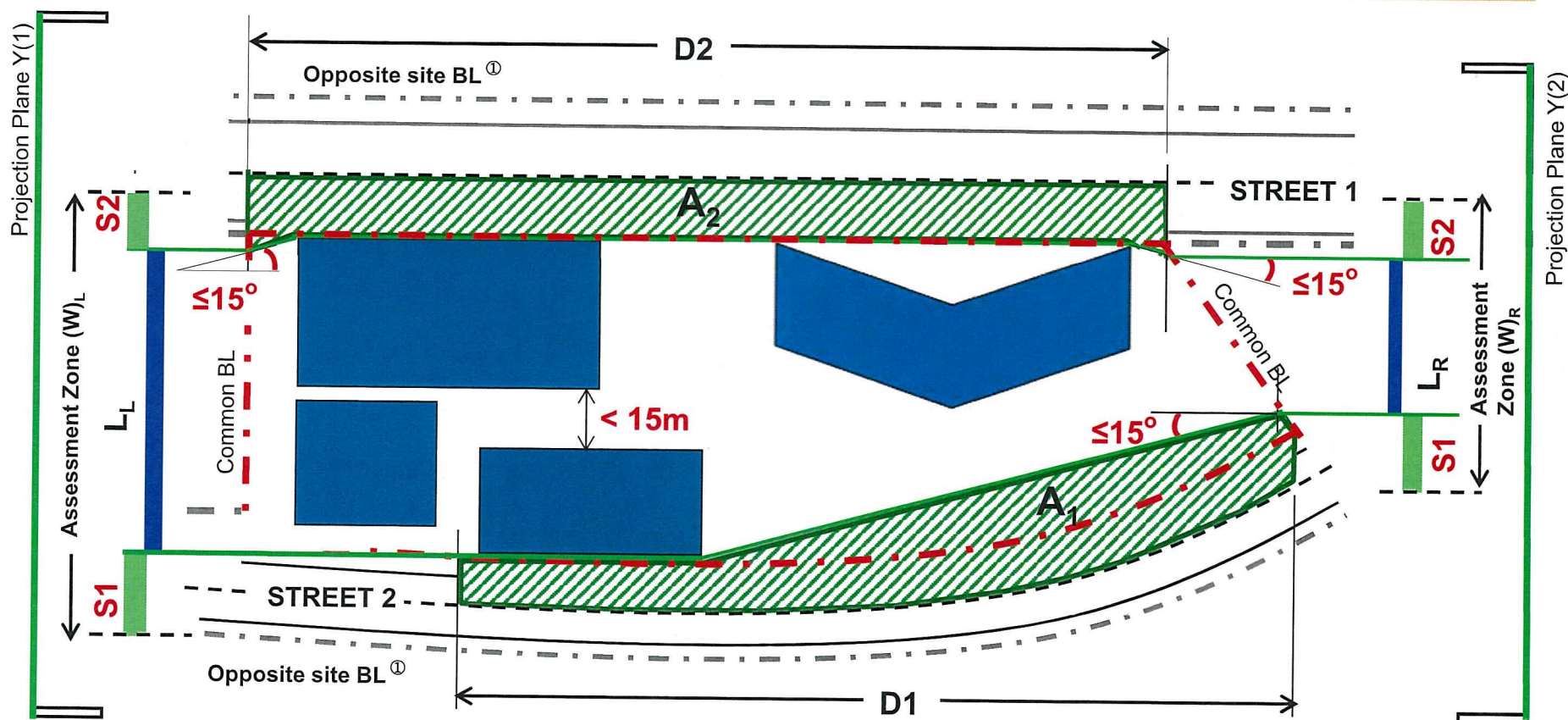
Fig. B14

Notional Air Corridor S at façade ends

Appendix B
(PNAP APP-152)

- When projection plane Y is placed on either side of the site, length of a building façade so projected on the planes may vary.
- Assessment of P may be based on the projection on either Y(1) or Y(2) as chosen.
- S1 & S2 between adjoining street/lane $\geq 7.5\text{m}$

$$S = \frac{\text{Area (A)}}{\text{Depth (D)}} (\geq 7.5\text{m})$$



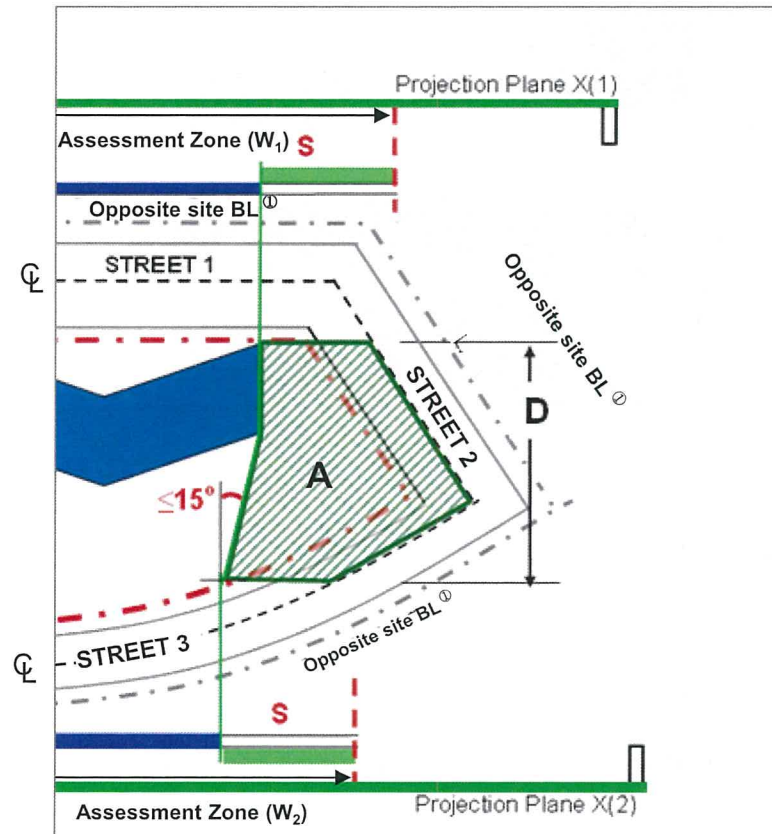
① Opposite side of the street if no opposite site.

Diagrammatic Plan Fig. B15

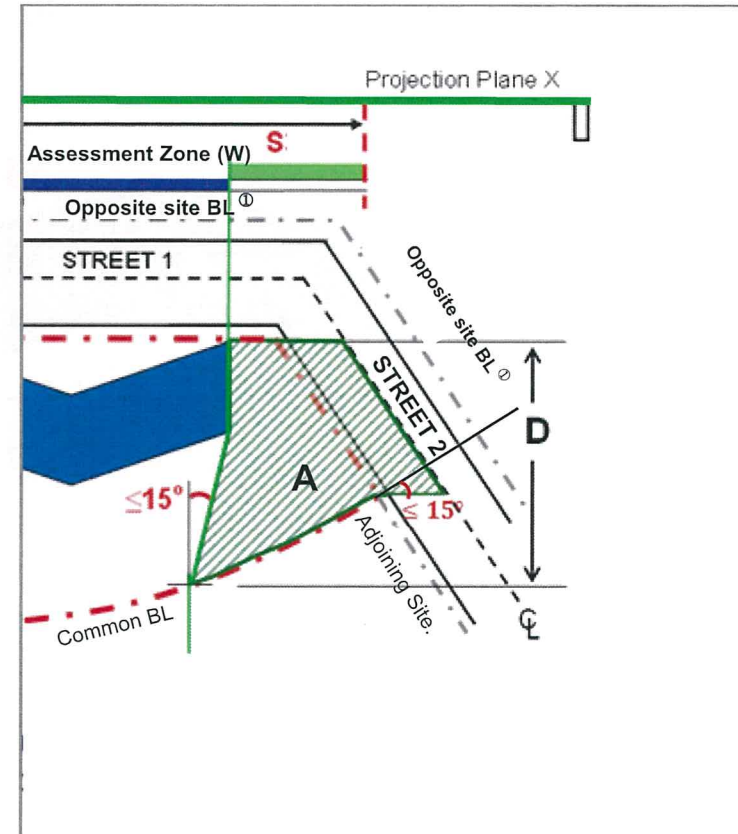
Notional Air Corridor S at façade ends

Appendix B
(PNAP APP-152)

$$S^{②} = \frac{\text{Area (A)}}{\text{Depth (D)}} \quad (\geq 7.5\text{m})$$



- When the site abuts three adjoining streets



- When the site abuts two adjoining streets

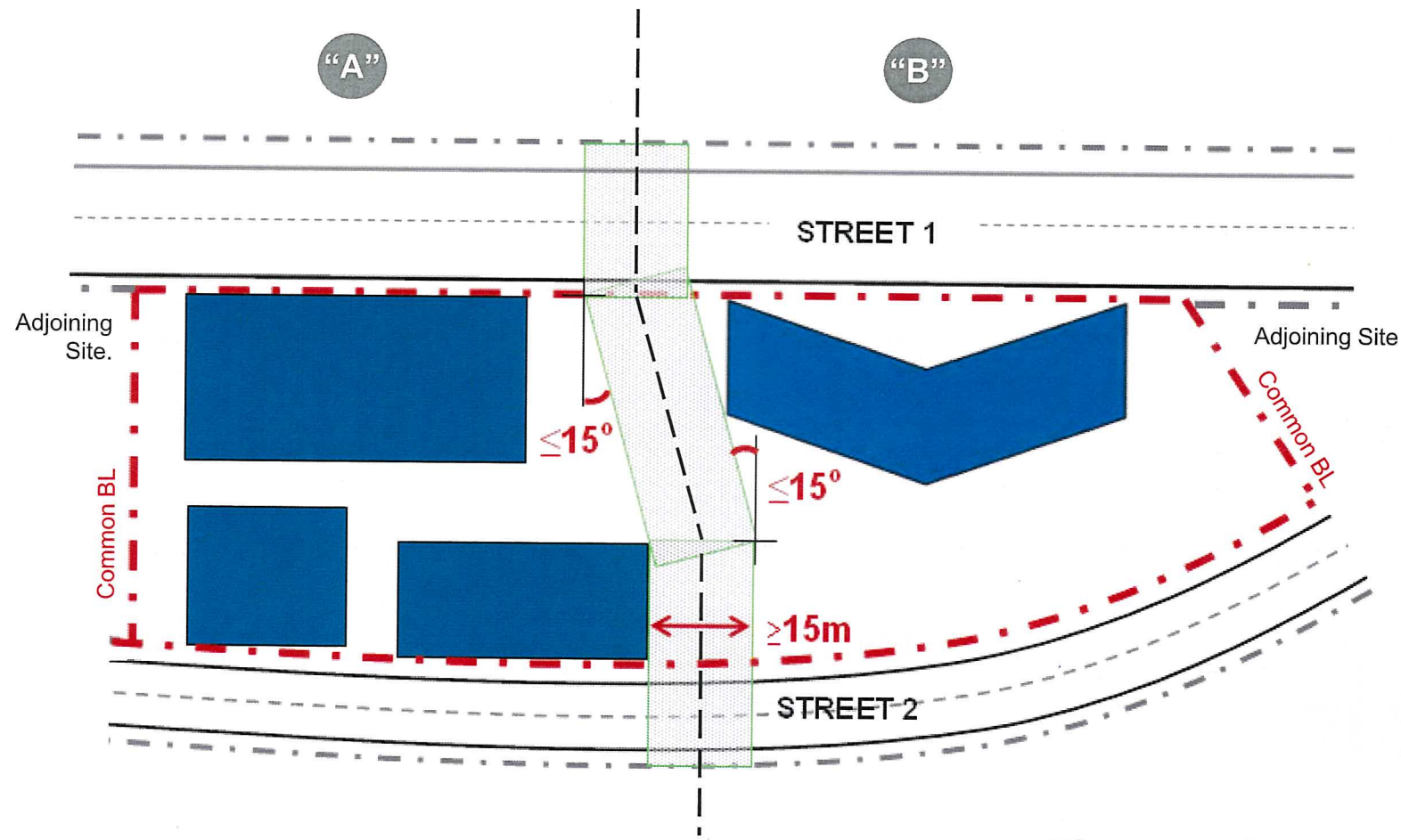
① Opposite side of the street if no opposite site.
② No part of the building within 3m from the BL.

Diagrammatic Plans Fig. B16

Wind Path passing through the site

Dividing the site into TWO or more notional sites for assessment of P

- vertically uncovered and unobstructed above the lowest level of the assessment zone
- width $\geq 15\text{m}$
- leading to a street or lane of mean width $\geq 7.5\text{m}$ at both ends



Diagrammatic Plan Fig. B17

Sub-divided Notional Sites for Assessment of P

- S at the projected facade end shall be measured to the notional BL at centreline of the wind path.
- Individual pair of projection planes may be chosen for each of the TWO sub-divided sites for P assessment.
- "Level Zero" of the original undivided site shall be used for all notional sites.

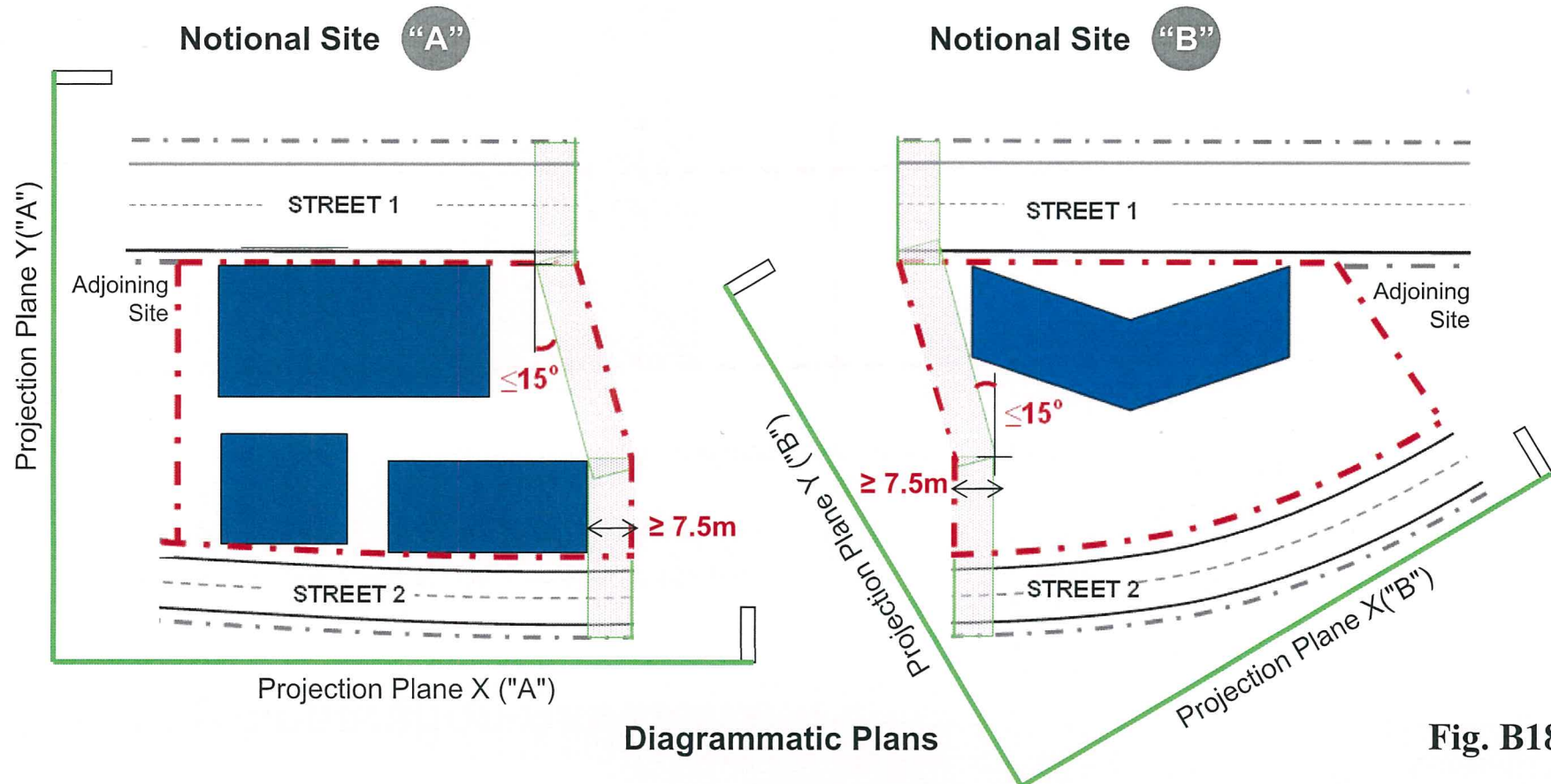
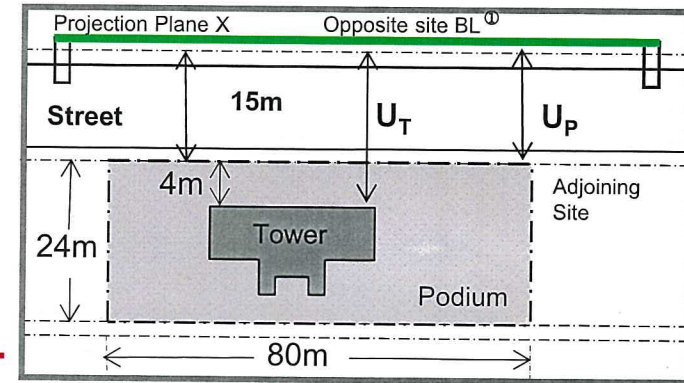
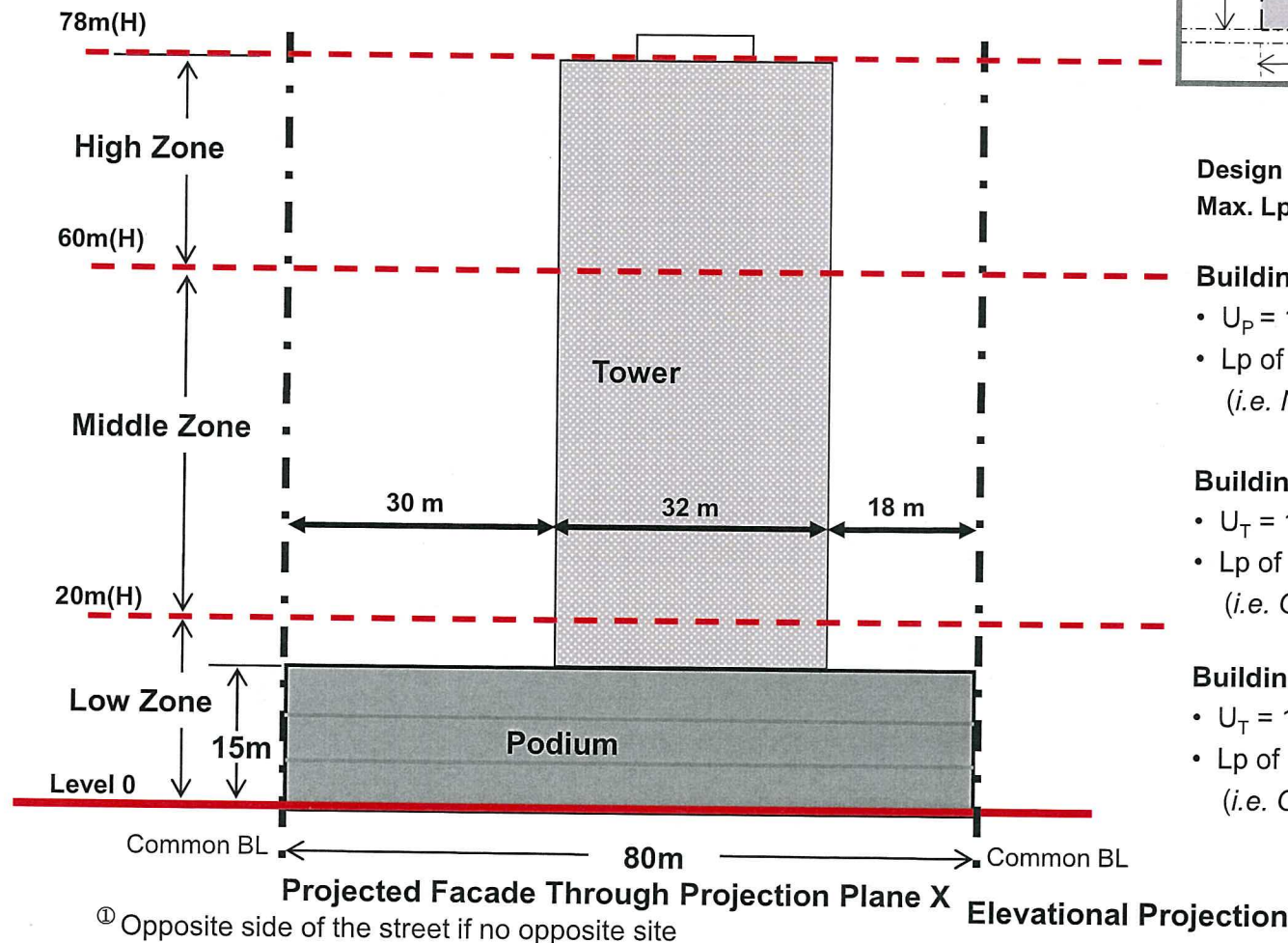


Fig. B18

Building Separation Assessment

Sample Case

- Site area = $1,920\text{m}^2$ ($< 20,000\text{m}^2$)
- Proposed building: one tower above a podium of 15m(H)
- Max. building height = 78m ($> 60\text{m}$)
- The site abuts a street of 15m wide
- L_p of podium with full site coverage = 80m ($> 60\text{m}$, *assessment required*)



Plan

Design Requirement (1)

Max. $L_p = 5 \times U$

Building at Low Zone

- $U_P = 15\text{m}$, max. $L_P = U_P \times 5 = 75\text{m}$
- L_p of proposed podium = 80m ($> 75\text{m}$)
(i.e. NOT OK)

Building at Middle Zone

- $U_T = 19\text{m}$, max. $L_T = U_T \times 5 = 95\text{m}$
- L_p of proposed tower = 32m ($< 95\text{m}$)
(i.e. OK)

Building at High Zone

- $U_T = 19\text{m}$, max. $L_T = U_T \times 5 = 95\text{m}$
- L_p of proposed tower = 32m ($< 95\text{m}$)
(i.e. OK)

Fig. B19

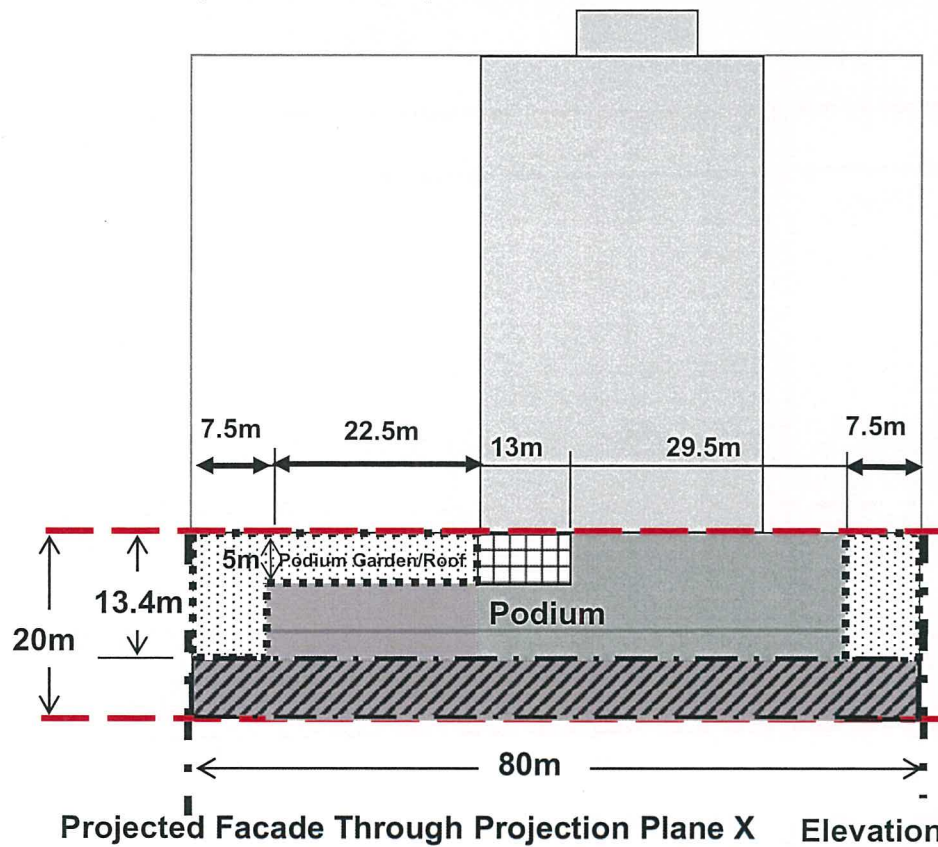
Building Separation Assessment

Design Requirement (1) - Low Zone

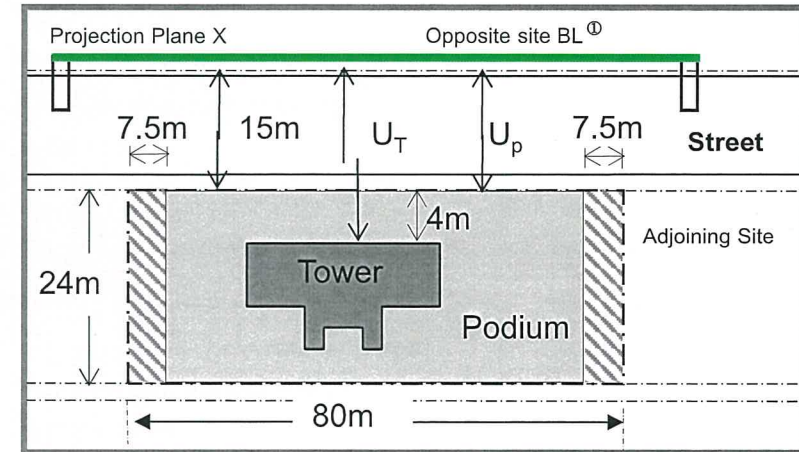
- $U_p = 15\text{m}$, max. $L_p = U_p \times 5 = 75\text{m}$
- $L_p = 80\text{m} - 7.5\text{m} \times 2 = 65\text{m} < 75\text{m}$

Design Requirement (2) - Low Zone

- Minimum $P = 20\%$ (from Table 2)
- Set Projection Plane X parallel to a Street



① Opposite side of the street if no opposite site



IS & S

- min. 7.5m to common B.L.
- height $\geq 2/3$ of the Assessment Zone **or** open to above

Plan

Total facade area of the IS

$$= (7.5 \times 13.4)\text{m}^2 + (7.5 \times 13.4 + 22.5 \times 5)\text{m}^2 = 313.5\text{m}^2$$

P achieved by the IS

$$= 313.5\text{m}^2 / (20 \times 80)\text{m}^2 \times 100\% \\ = 19\% (< 20\%, \text{ but not less than } (2/3) \times 20\% = 13.33\%)$$

Facade area of the PE

$$= 13\text{m} \times 5\text{m} = 65\text{m}^2$$

P achieved by the PE

$$= 65\text{m}^2 / (20 \times 80)\text{m}^2 \times 100\% \\ = 4\% (< (1/3) \times 20\% = 6.66\%, \text{ i.e. all accountable})$$

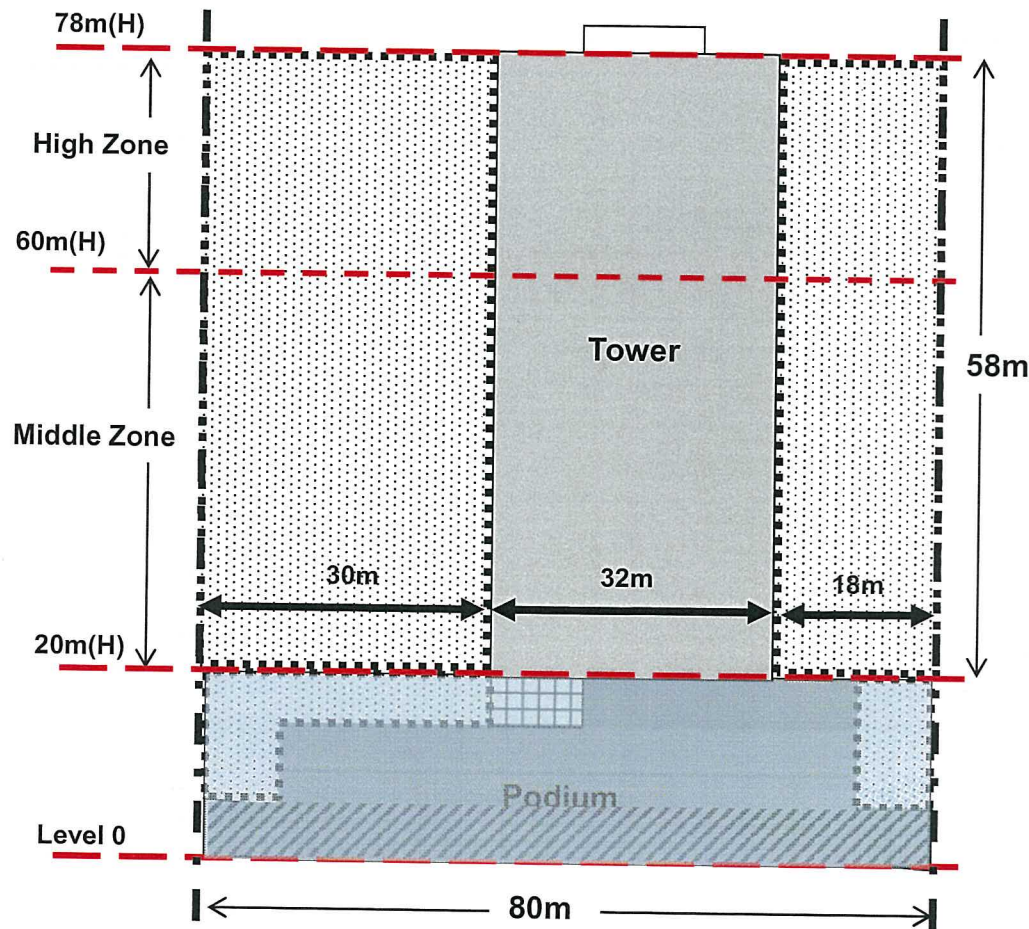
Overall P achieved at low zone

$$= 19\% + 4\% = 23\% (> 20\%, \text{ i.e. OK})$$

Fig. B20

Building Separation Assessment

Design Requirement (2) - Middle and High Zone

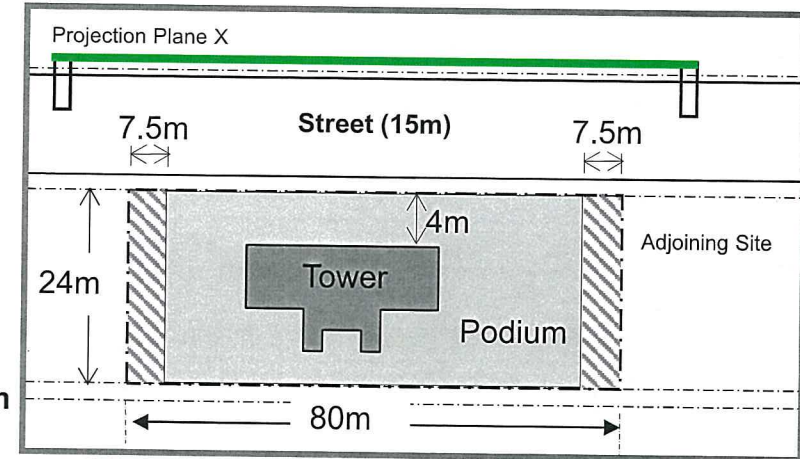


Projected Facade Through Projection Plane X

Elevational Projection



(Rev. 1/2016)



Plan

IS & S for middle & high zone

- min. 7.5m to common BL
- height $\geq 2/3$ of the Assessment Zone **or** open to above

Middle zone:

Total facade area of the IS

$$= (18 \times 40) \text{m}^2 + (30 \times 40) \text{m}^2 = 1920 \text{m}^2$$

P achieved by IS

$$= 1920 \text{m}^2 / (80 \times 40) \text{m}^2 \times 100\% \\ = 60\% (> 20\%, \text{ i.e. OK})$$

High zone:

Total facade area of the IS

$$= (18 \times 18) \text{m}^2 + (30 \times 18) \text{m}^2 = 864 \text{m}^2$$

P achieved by IS

$$= 864 \text{m}^2 / (80 \times 18) \text{m}^2 \times 100\% \\ = 60\% (> 20\%, \text{ i.e. OK})$$

Fig. B21

Building Setback Requirements

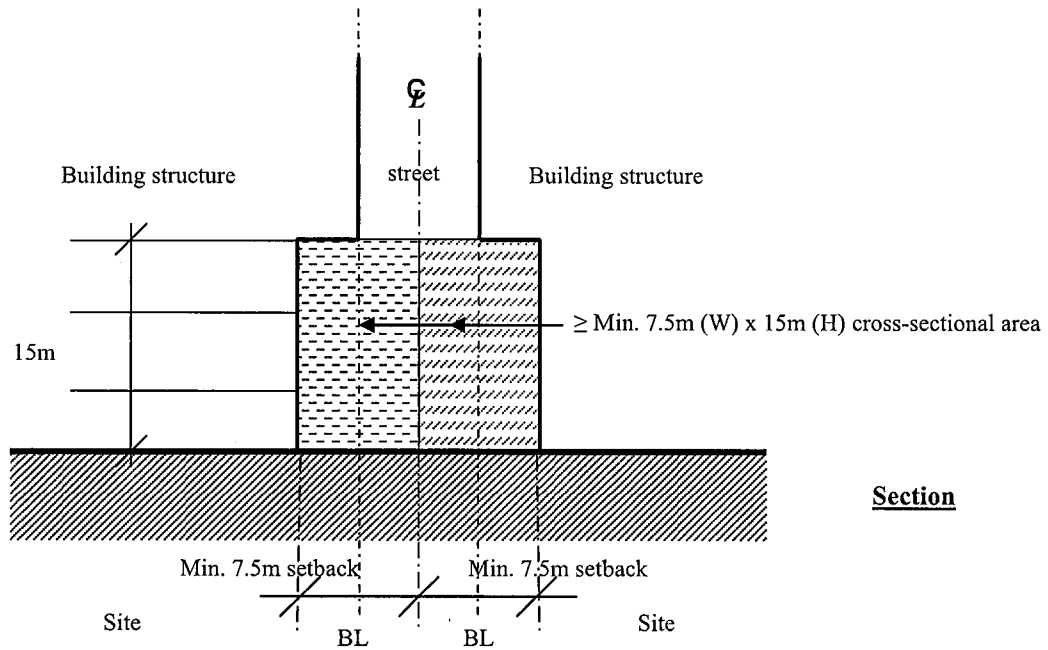


Fig. C1 Building setback as detailed in paragraph 7(a) of this PNAP

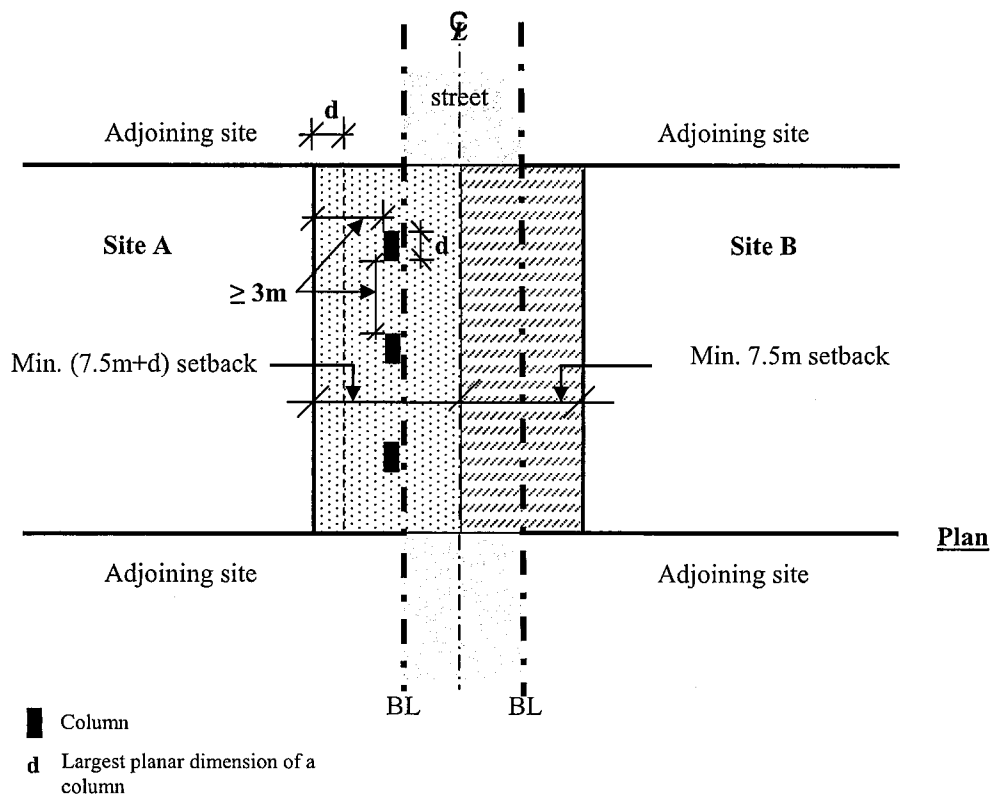


Fig. C2 Building setback as detailed in paragraphs 7(a) and 8(c)

Appendix C
(PNAP APP-152)

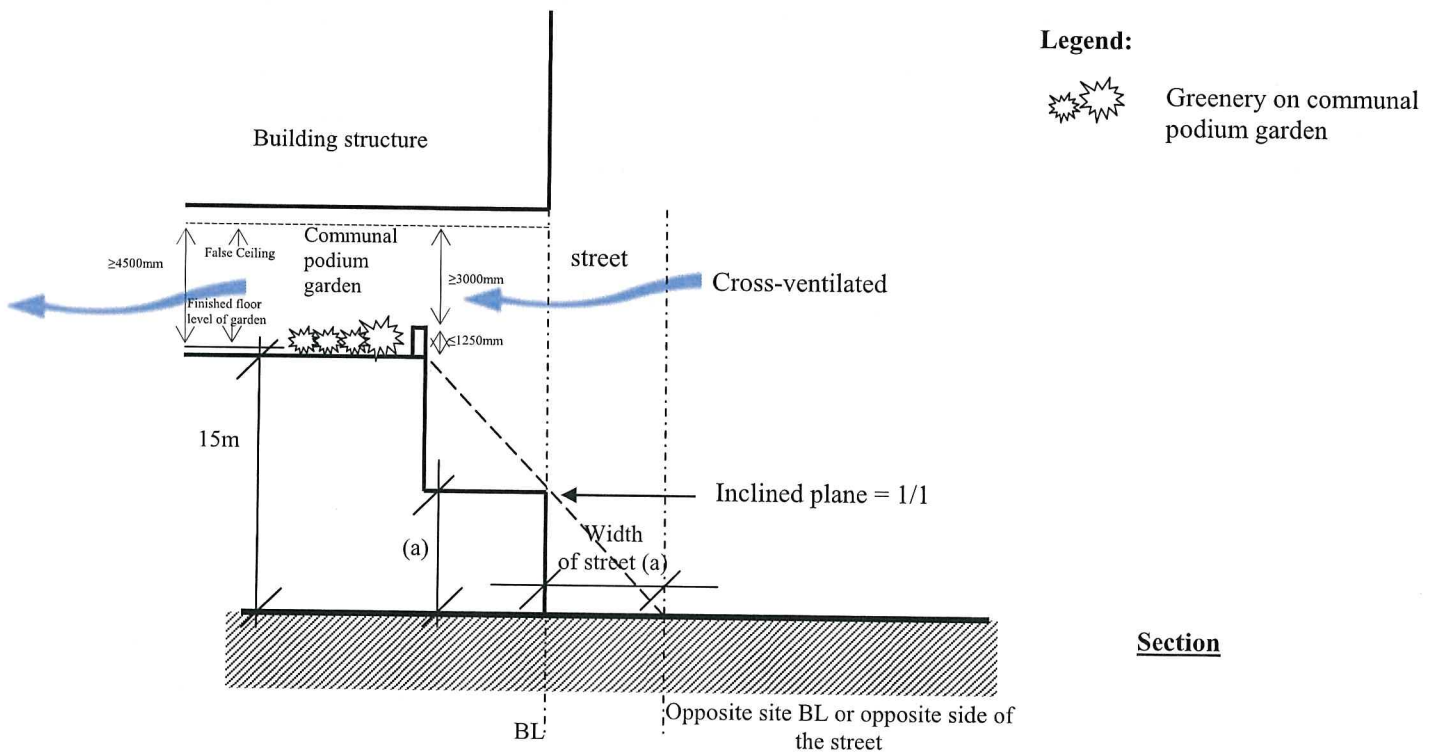


Fig. C3 Stepped building profile with communal podium garden as detailed in paragraph 7(b)

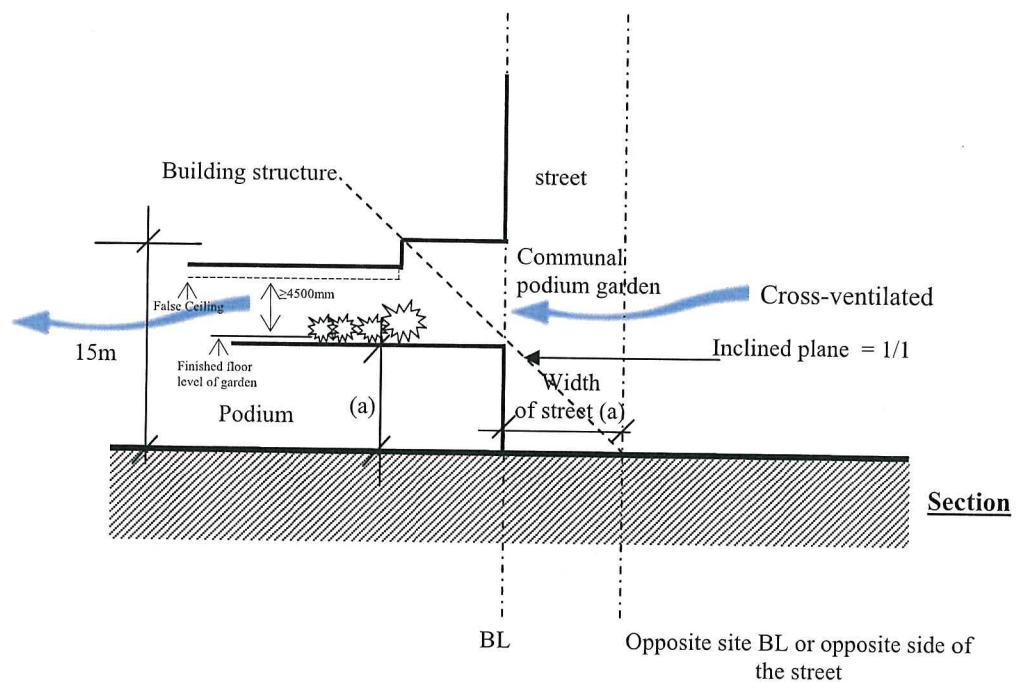
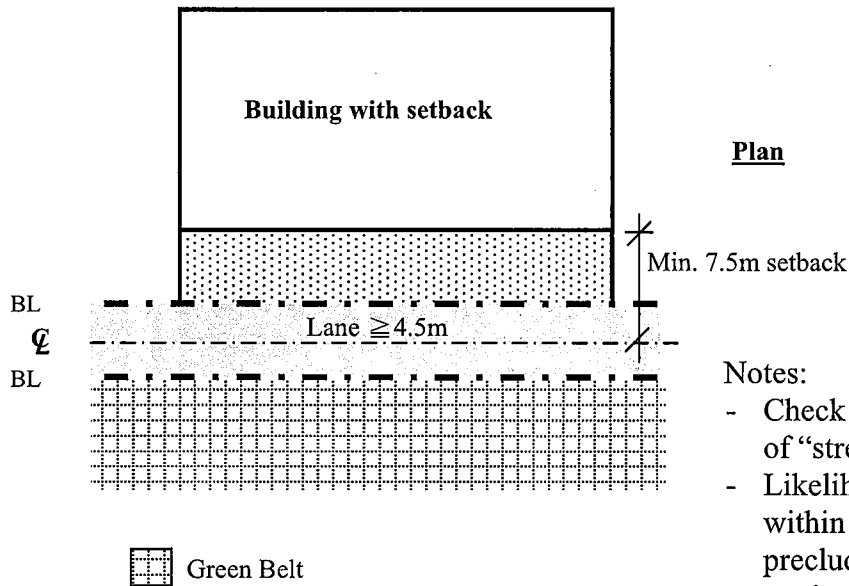


Fig. C4 Stepped building profile with communal podium garden as detailed in paragraph 7(b)

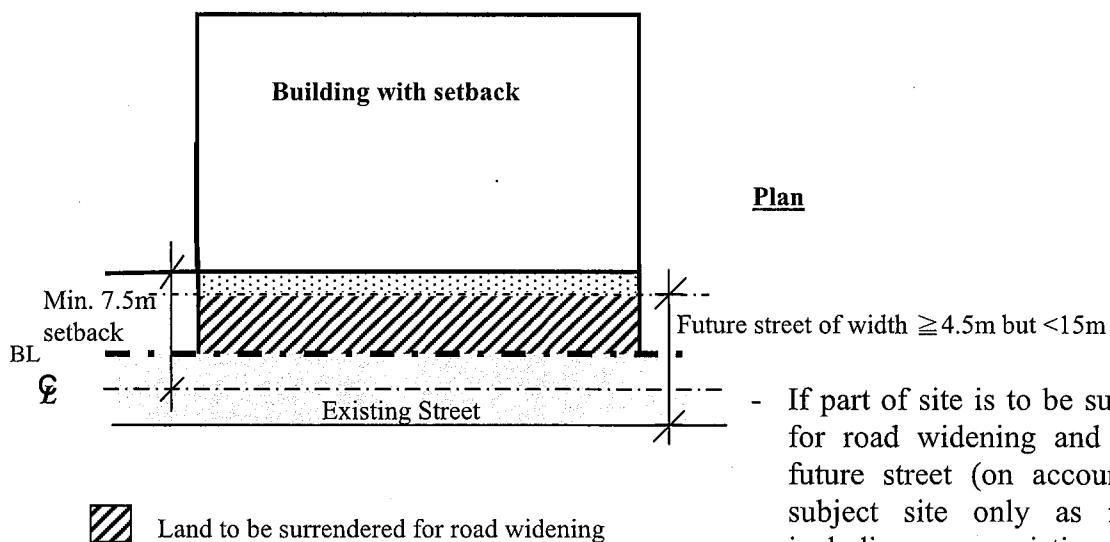


Plan

Notes:

- Check if lane falls under the definition of “street” in Appendix A
- Likelihood of future development within Green Belt cannot be precluded. Hence, Green Belt should not be regarded as lane
- If width of the lane is $\geq 4.5\text{m}$ but $< 15\text{m}$, building setback is required

Fig. C5 Example (1) of Building Setback - Site abutting narrow lane with Green Belt beyond



Plan

- If part of site is to be surrendered for road widening and width of future street (on account of the subject site only as indicated) including any existing street is $\geq 4.5\text{m}$ but $< 15\text{m}$, building setback is required from the centreline of the existing street.

Fig. C6 Example (2) of Building Setback – Portion of Site will be surrendered to form a future street

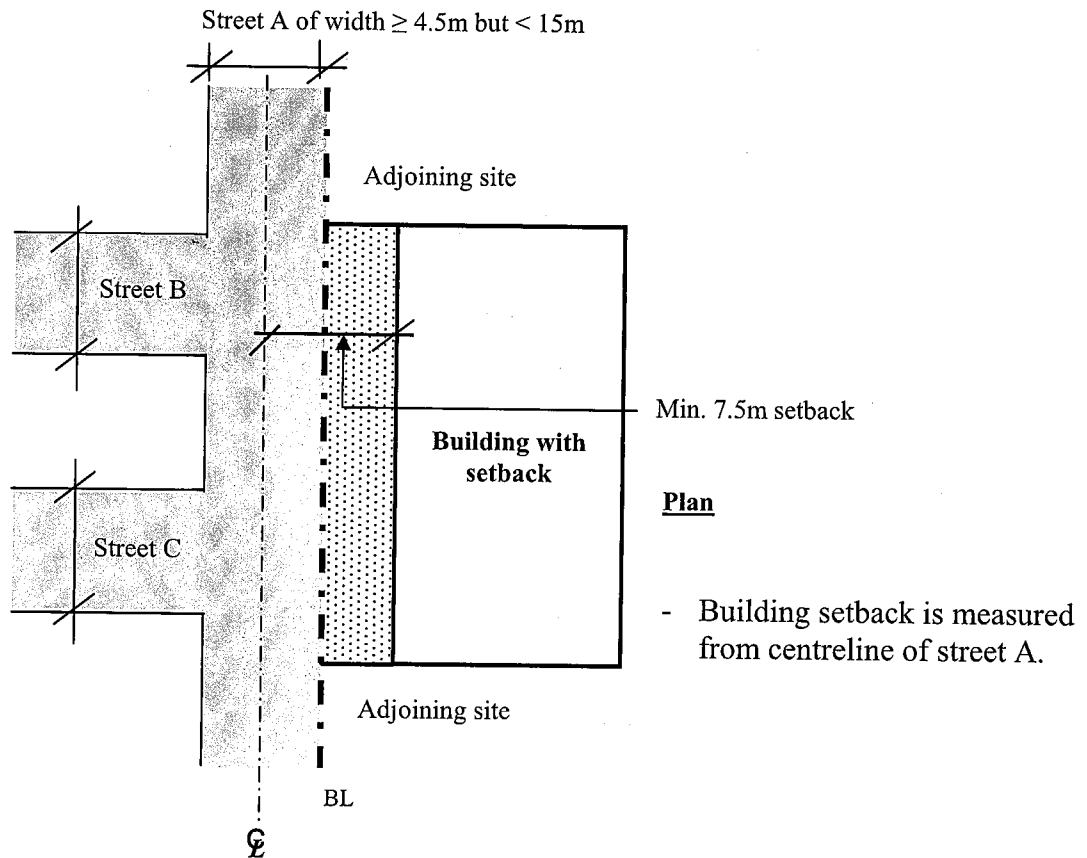


Fig. C7 Example (3) of Building Setback - Site abutting streets at intersections

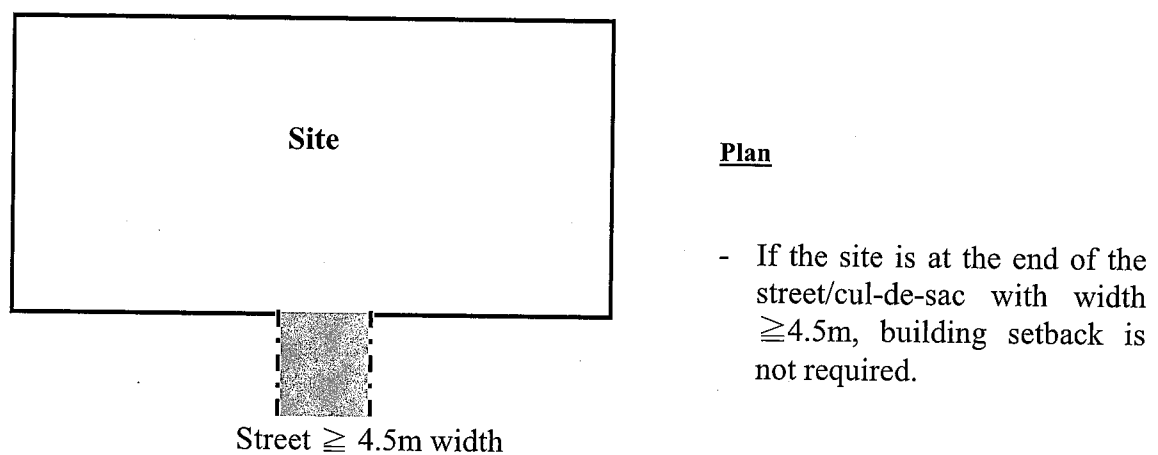
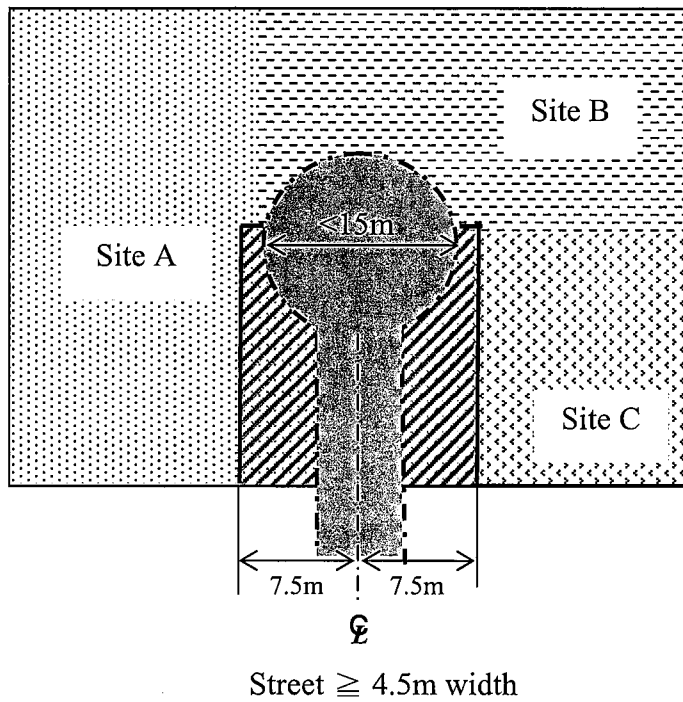


Fig. C8 Example (4) of Building Setback – Site at the end of the street/ cul-de-sac



Plan

- For Site B abutting the cul-de-sac, building setback is not required.
- For Site A & C abutting the street with width $\geq 4.5m$ but $<15m$, building setback (hatched area) is applicable.

Fig. C9 Example (5) of Building Setback – Site abutting cul-de-sac

(Rev 1/2016)

Site Coverage of Greenery

1. All *greenery areas* should be measured horizontally based on the uncovered soil areas as shown on the plan except for the following scenarios in the *primary zone* :-
 - (i) greenery areas in the form of projecting planters (see Figure D1) may be shadowed vertically by other projecting features, provided that the clear height of the projecting features above the covered area is not less than 8 times the horizontal width of the covered area and fronting or visible to the public from a street/a public pedestrian way/ public open space; or
 - (ii) greenery areas may be shadowed vertically by buildings (including overhangs), provided that when measured from the 45° projected line taken from the edge of the building, they should fall within the area and be accessible to the public, visitors or occupiers from the adjoining open areas (see Figure D2).
2. The summation of following greening features may be accepted to contribute not more than 30% of the total required *greenery areas* of the overall provision as specified in Table 2 of this PNAP subject to its location and application of a reduction factor where applicable.

Greening Features	Location	Reduction Factor in Computing the Greenery Areas
Covered greenery areas ² accessible to public, occupiers or visitors from adjoining open space	<i>Primary zone</i> (measured from 45° projected line taken from the edge of building)	50%
Water features ³	<i>Primary zone</i> or uncovered communal roof	50%
<i>Grass paving</i>	Except carparking spaces or loading / unloading areas	50%
Planters along the perimeter of an inaccessible roof ⁴	Primary zone	50%
<i>Vertical greening</i> ⁵	Primary zone	Nil
Landscape-treated Greening on slopes / retaining structures ⁶ with gradient steeper than 45°	No restriction	Nil

- 1 For reference, the recommended minimum soil depths for trees, shrubs, grass/ground covers are 1.2m, 0.6m and 0.3m respectively.
- 2 In planting design and species selection for covered greenery, reference should be made to “Proper Planting Practice – Provide Sufficient Growing Space between Trees and Adjacent Buildings / Structures” issued by Greening, Landscape & Tree Management Section of DEVB (www.greening.gov.hk).
- 3 Water features should be measured by the horizontal water surface area. Swimming pool and jacuzzi are not considered as water features. Filtration plant room for water feature may be exempted from

GFA but subject to compliance with the pre-requisites and the overall GFA cap on GFA concessions stipulated in PNAP APP-151.

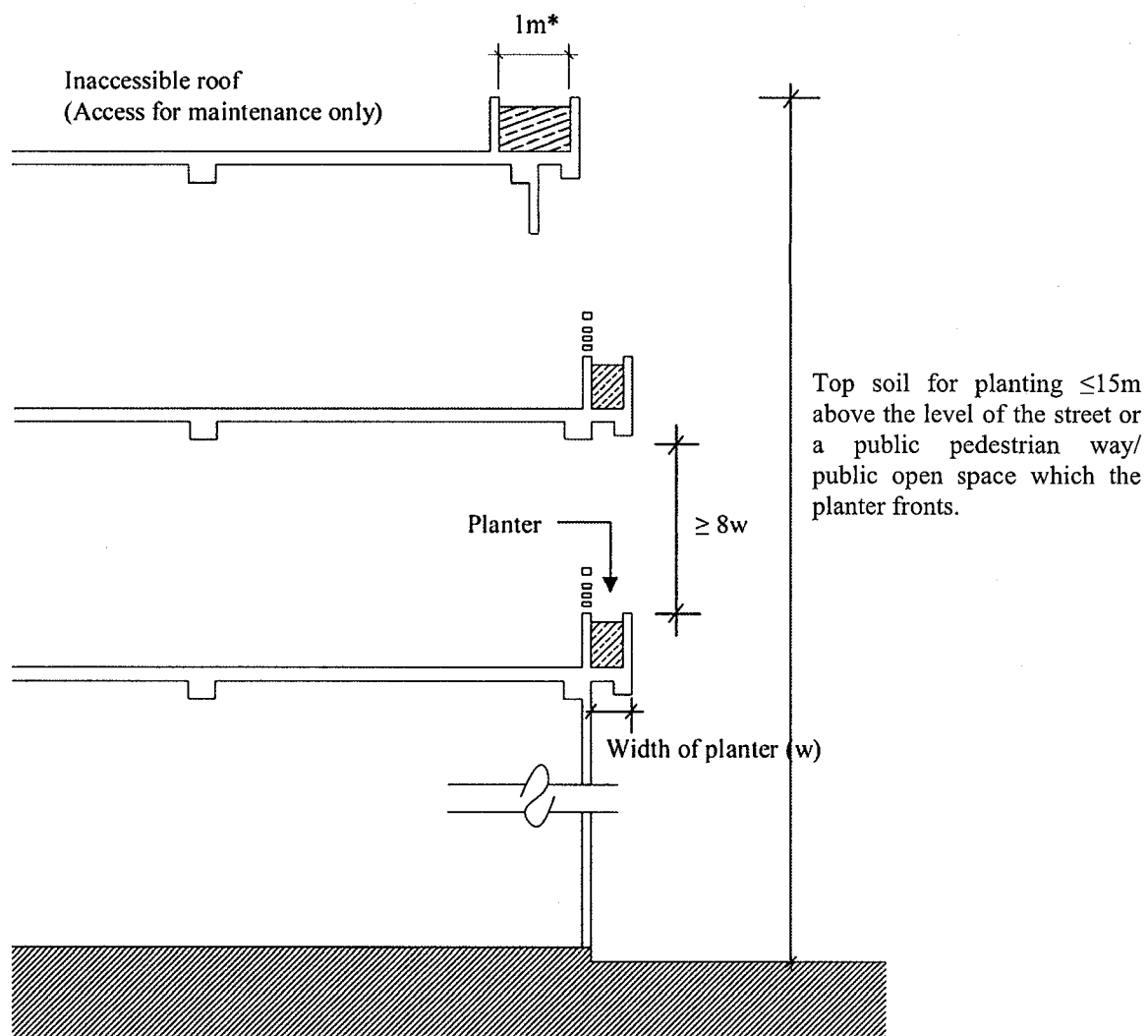
3. Irrigation points and drainage provision should be provided at *greenery areas* to facilitate future maintenance. In addition, where greenery is provided on the roof, the roof should be of impervious construction and the design and calculation of the minimum imposed load on the roof should also take into account the anticipated loads of the soil, plants, trees, etc.
4. Greenery in removable pots/planters that are not permanently fixed or built into the development; and covered greenery above the *primary zone* such as in covered communal podium garden or sky garden cannot be counted as *greenery area*.
5. All *greenery areas* for the purpose of this PNAP should be designated as common part of the building. As for the perimeter planters on the inaccessible flat roofs, communal access paths should still be provided from the common areas for maintenance of the planters.
6. When granting modifications under section 42 of the Building Ordinance for GFA concessions applied under PNAP APP-151, the Building Authority (BA) may impose, but not limited to, the following conditions: -
 - (a) The *greenery areas* should not be used for any other purposes without the prior consent of the BA.
 - (b) The restriction on the use as stated in item (a) above and the *greenery areas* to be designated as common parts should be incorporated into the Deed of Mutual Covenant (DMC) with details of their size (in area), locations and the common access thereto clearly indicated on a plan(s). Where no DMC is to be in force, such restriction and designation should be incorporated into the Sales and Purchase Agreement, Assignment or Tenancy Agreement.
 - (c) The letter of undertaking for complying with the requirements as stated in items (a) and (b) above, submitted by the developer or owner in support of the application for GFA concessions should be registered in the Land Registry before applying for the occupation permit.

4 Irrespective of the size of planters, only the soil areas within 1m from the perimeter of the roof are accountable.

5 *Vertical greening* should be measured by the elevational area of the vegetated panel/modular planter or panel, and the vertical frame (for climbing and/or weeping plants) where the greenery will grow. For *greenery areas* provided by climbing or weeping plants, vertical frames with a height more than 7.5m are not accountable. The horizontal area of soil in planters under the vertical frame/modular planter/panel already counted for vertical greening as aforesaid should be excluded from the *greenery area* calculation. Self-clinging climbing plants on hard surfaced walls should be measured horizontally based on the soil areas as shown on the plan (not counted as vertical greening and therefore not subject to the restriction in the table).

6 Greening on slopes/retaining structures should be measured by the projected elevational area of the soil where the greenery will grow. Greening on slopes/retaining structures with gradient equal or less than 45° will be measured horizontally based on the soil area as shown on the plan.

Greenery Area at Primary Zone



Typical Section (not to scale)

- * Irrespective of the size of planters, only maximum 1m wide soil areas of planters along the perimeter of an inaccessible flat roof in the *primary zone* can be accountable.

Fig. D1 Greenery in *primary zone* as per paragraph 1(i) of this Appendix

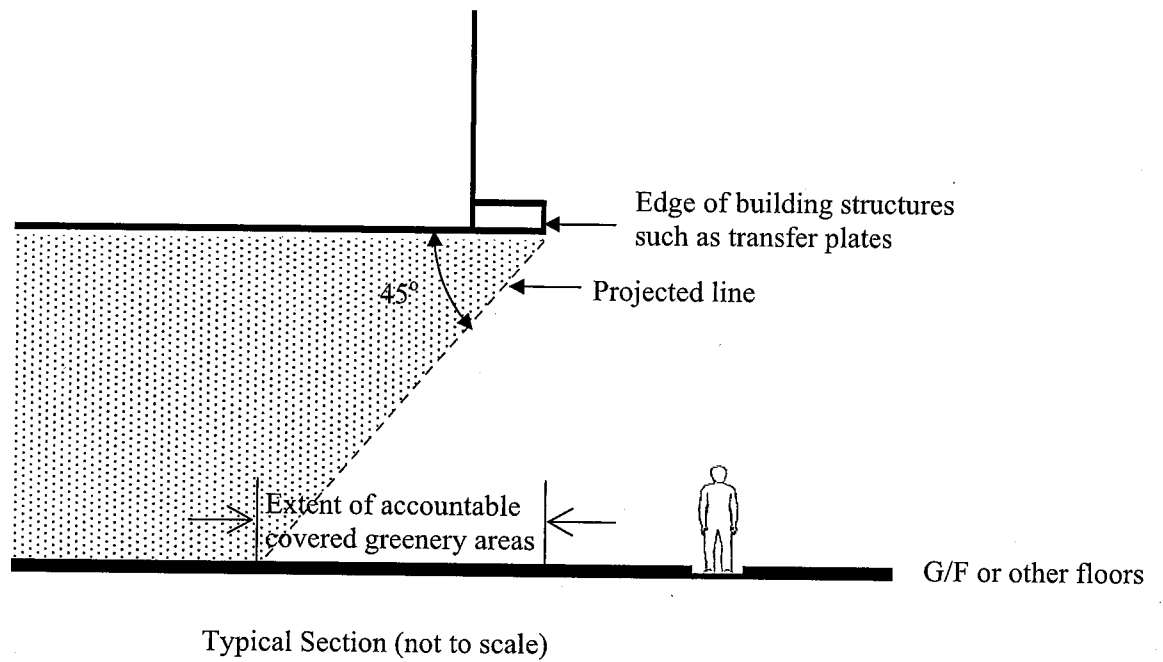


Fig. D2 Covered greenery in *primary zone* as per paragraph 1(ii)

Alternative Approaches

Principles

Pursuant to paragraph 12 of this PNAP, in recognition of the genuine constraints in compliance with the SBD Guidelines under the special circumstances of individual cases, the BA takes a flexible and pragmatic stance in accepting:

- (a) performance-based approach in justifying alternative designs that can achieve equivalent standards, or
 - (b) inadequate provisions of a particular key design element when mitigated by other effective compensatory measures such as enhancement in the provision of other key elements or by the consideration of the unique context of the site e.g. sites with unobstructed surrounds, such as piers.
2. Alternative design proposals and applications for exemption or modification of the building separation, building setback and site coverage of greenery requirements should be supported by justifications. Where necessary, such proposals and applications may be examined by the Building Committee or the Expanded Building Committee (collectively as BC) composing of external experts in the relevant fields. The BA may take into account recommendations from the BC and other relevant considerations in determining acceptance of the proposal.

Building Separation

Alternative Design for Waiving Low Zone Assessment

3. The building separation requirement at the low zone may be waived for buildings with:
- (a) less dominating building bulk – the site coverage for the building including any podium does not exceed 65% of the site; and
 - (b) adequate setback along *street* frontage – the full height of the building is set back¹ from a site boundary abutting any *street* such that the total frontage of such setback is not less than 50% of the length of that boundary and not less than 10m long or the full frontage for site with frontage less than 10m; and the total setback area is not less than 15% of the site area.

Performance-based Design Alternative

¹ Reference is made to the design criteria on the setback approach under PNAP APP-132

4. To allow for flexibility in building design where the prescriptive requirements specified in Design Requirements (1) and (2) as mentioned in paragraph 4 of this PNAP cannot be fully met, the adoption of performance-based design alternative on the provision of building separation may be accepted on the conditions that:-

- (a) Provision of the minimum P as specified in Table 1 for each assessment zone; and
- (b) Satisfactory demonstration by *air ventilation assessment (AVA)* that the buildings' potential impact on the local wind environment has been duly considered and that by comparing with a baseline case which complies with the above Design Requirements (1) and (2), the proposed design is equivalent or better in external air ventilation terms.

5. The *AVA* shall be done by referring to the latest methodology and requirements of Technical Guide for Air Ventilation Assessments² using wind tunnel modelling or digital representation of the physical and wind environment using *Computational Fluid Dynamics (CFD)* simulations.

6. For projects adopting a performance-based design alternative, the following information with full justifications for deviation from the prescribed requirements should be submitted preferably in two stages to avoid abortive work:

Stage 1 Submission

- (a) An expert evaluation on whether the tools and methodologies for *AVA* employed are fit for the purpose and are suitably verified and scientifically validated with practical merits shall be carried out. In this connection, submission for prior acceptance of all information listed below covering factors like site configuration, local topography, wind characteristic and sensitive receivers in the surrounding areas, relevant urban climatic considerations, etc. is required:
 - (i) a baseline case that fully complies with all the prescriptive Design Requirements (1) and (2);
 - (ii) details of scientific bases to assess performance;
 - (iii) analysis tools and/or design procedures;
 - (iv) modeling input, settings and parameters for the analysis and/or design;
 - (v) limitation and applicability of the proposal in context;
 - (vi) interpretation of results;
 - (vii) method of verification;
 - (viii) similar established standard and implementation in other places; and
 - (ix) documented references of the scientific bases.

² The Technical Guide is issued by the Planning Department and is available from the website at (http://www.pland.gov.hk/pland_en/p_study/comp_s/avas/avas_eng/avas_mtguide_p01.html)

Stage 2 Submission

- (b) A study report on whether the proposed scheme will be in line with urban climatic considerations and such similar requirements as imposed through the town planning approval process or in Government lease; and
- (c) An *AVA* report on whether the proposed scheme will perform better in external air ventilation terms, demonstrated by the simulation results of the proposed scheme as compared to the simulation results of the baseline case.

7. Upon approval of the proposal, additional three hard copies and an electronic copy in Acrobat format for each *AVA* report shall be submitted together with a copy of the completed *AVA* register³ for inclusion in the register kept by the Planning Department.

Special Considerations for Buildings with Unique Functional Requirements or Heritage Value

8. For alteration and addition of an existing building resulting in a new building involving the adaptive reuse of historic building or for certain new buildings with special functional requirements in building length and/or bulk e.g. infrastructural facilities, transport terminus, sports and civic facilities, the BA may exempt such historic buildings or special facilities from the building separation Design Requirements (1) & (2) if the equivalent performance is proven and compensatory measures are provided as follows:

- (a) An *AVA* by wind tunnel or *CFD* has been conducted to demonstrate that the design for the proposed new building has outperformed another viable notional scheme⁴ in accordance with the methodology and requirements stipulated under the category of Microclimate Around Buildings (S_A8) of the BEAM Plus⁵ certification; and either one of the following three requirements under the aforesaid category has been complied with; and the results of which are considered acceptable by the BA:
 - (i) wind amplification – no pedestrian areas will be subject to excessive wind speeds;
 - (ii) elevated temperatures – providing shade; or
 - (iii) elevated temperatures – providing suitable roofing material or vegetation roof.

³ AP is requested to seek consent from the owners to release the information contained in the *AVA* proforma (https://www.devb.gov.hk/filemanager/en/content_679/hplb-etwb-tc-01-06.pdf) and / or the *AVA* reports for public inspection. For projects which cannot be disclosed to the public due to confidentiality or consent from owners has not been given, the information would be kept solely for the government's internal reference.

⁴ Viable notional scheme is a practically viable scheme complying with relevant statutory and allied requirements but excluding those on building separation for demonstrating the improvements to be achieved by the proposed design.

⁵ BEAM Plus for New Buildings. (<http://www.hkgbc.org.hk/eng/beamplus-main.aspx>)

- (b) Building features such as additional building setback, stepped profile of the podium from the adjoining streets and communal podium garden to separate the podium from the tower above and to promote air flow at pedestrian level, etc. have been considered in the assessment described in item (a) above and incorporated in the design, where appropriate; and
- (c) Building separation requirement is fully complied with for other buildings on the same site or other parts of the building that are located above such special facilities or historic buildings, where applicable.

Proposal involving both new and existing buildings in a site

9. In principle, provided that new buildings will not increase the L_p of the existing building, the BA may exempt the existing building from the building separation requirement by disregarding them from the assessment zone.

Building Setback

10. Where the setback of a building will result in a setback area of more than 15% of the area of the site, requirement for building setback may be relaxed if the following compensatory measures are provided:

- (a) Full height and full frontage setback of the building from the site boundaries abutting any narrow streets from the respective site boundaries with a total setback area which is not less than 15% of the area of the site provided that such area will contribute to improving the street environment; and
- (b) For small sites not exceeding 1,000 m², greenery should be provided at the Primary Zone such that the greenery area is not less than 50% of the setback area. All greenery areas shall comply with the requirements in Appendix D where applicable.

Site Coverage of Greenery

11. For sites with genuine difficulties in providing greenery along the street frontage or in the primary zone but with abundance of sustainable natural landscape at the back, the BA may favourably consider the provision of welcoming “green” path to the street pedestrian for viewing such natural landscape as an alternative.

12. For sites with development in phases, while the level of provision of greenery should base on the area of the whole site, notional site area may be applicable to a certain phase of the development for the greenery area to be provided for that particular phase.

(1/2016)

Information and Documents to be Submitted

To demonstrate compliance with the building separation, building setback and site coverage of greenery requirements, the following information should be provided for consideration: -

Building Separation

- (a) 1:500 layout plans each showing the site in relation to its adjoining *streets* and surrounding buildings and features. The footprint (external walls) of the proposed buildings within the site, the provided *IS*, *PE*, the selected orthogonal projection planes, air corridors and air paths are to be clearly shown to demonstrate compliance with the building separation requirements for each low, middle and high zones.
- (b) Plans, elevations and sections at a legible ratio (preferably not less than 1:300) with supporting calculations showing the *U*, the maximum *L_p* of buildings and groups of buildings in comparison to the permissible *L_p*; *S* provided in comparison to the required *S*; and *P* of buildings achieved at each low, middle and high zone, in comparison to the minimum *P*.

Building Setback

- (c) A block plan showing the location of the subject site and the width of all adjoining *streets*;
- (d) Where the width of any *street* is less than 15m, further details such as level(s) of the *street* for computing the amount of required setback.
- (e) 1:100 plan(s) and section(s) with calculations demonstrating compliance with the building setback requirements.
- (f) Information showing the compliance of *greenery areas* requirement under paragraph 10(b) of Appendix E (as detailed in items (g) and (h) below).

Site Coverage of Greenery

- (g)* Plans at a legible ratio (preferably not less than 1:300) showing the locations of the proposed *greenery areas*, the common access thereto and details of relevant street, public pedestrian way, public open space for compliance with the requirement of *greenery areas* at *Primary Zone(s)*.
- (h)* A schedule with calculations and illustrated diagrams showing the area of proposed greenery at each location for compliance with the minimum site coverage of greenery requirements.

Note

- * Information to be updated and soft copy to be submitted at the time of submitting application for occupation permit. The soft copy should be in PDF format with 200 dpi resolution.

Implications of Sustainable Building Design Guidelines

1. Sustainable Building Design Guidelines

- 1.1 In October 2010, the Government promulgated that a series of measures would be put in place to enhance the design standard of new buildings to foster a quality and sustainable built environment as well as to address local concerns on excessive building bulk and height. The new requirements were subsequently imposed through administrative means by way of new practice notes for building professionals (i.e. PNAP APP-151 “Building Design to Foster a Quality and Sustainable Built Environment” (**Annex B1**)) and APP-152 “Sustainable Building Design Guidelines” (SBDG) (**Annex B2**) first issued by the Buildings Department in January 2011.
- 1.2 SBDG establishes 3 key building design elements, i.e. building separation, building setback and site coverage of greenery, with the objectives to achieve better air ventilation, enhance the environmental quality of living space, provide more greenery particularly at pedestrian level, and mitigate heat island effect (**Annex B2**).
- (a) Building Separation – Building sites that are 20,000m² or above, or sites that are less than 20,000m² but proposed with a continuous building façade length of 60m or above are subject to maximum façade length control and the requirement to provide 20%, 25% or 33.3% permeability, depending on the site area, façade length and building height (BH), in the three assessment zones (i.e. 0-20m (Low Zone), 20-60m (Middle Zone) and above 60m (High Zone)).
- (b) Building Setback – Buildings fronting a street less than 15m wide should be set back so that no part of the building up to a level of 15m above the street level is within 7.5m from the street centreline; or alternatively a cross-ventilated communal podium garden as specified and with a clear height of not less than 4.5m is to be provided.
- (c) Site Coverage (SC) of Greenery – For sites not less than 1,000m², greenery areas of 20% or 30% of the site area should be provided depending on the size of site; and not less than half of greenery areas should be within a 15m vertical zone along the abutting street level (i.e. the Primary Zone).
- 1.3 Since there are special circumstances in which genuine difficulties in complying with the prescriptive requirements of SBDG may be encountered, a flexible and pragmatic stance has been taken by the Building Authority (BA) when considering proposals holistically to achieve the objectives of SBDG. Alternative approaches (e.g. performance-based design alternatives, mitigation by effective compensatory measures, or consideration of the unique context of the site) are provided in SBDG (**Appendix E** of APP-152 in **Annex B2**).
- 1.4 Compliance with SBDG is one of the pre-requisites for granting gross floor area (GFA) concessions for green/amenity features and non-mandatory/ non-essential plant rooms and services by the BA (**Annex B1**). Such requirements would also be included in the lease conditions of new land sale sites or lease modifications/land exchanges.

2. Implications on Building Profile

- 2.1 Since the specific and relevant building design requirements under SBDG can only be determined at detailed building design stage and there are different options or alternative approaches to meet the requirements, it would be difficult to ascertain at the early planning stage precisely the implications on individual development such as its eventual built form, block layout and BH. As such, the extent of implications of SBDG on building profile can only be estimated in general terms by adopting typical assumptions.

Building Setback

- 2.2 For building setback, to maintain a building line of 7.5m from the street centreline up to 15m from the street level, the likely implication would be a reduction of SC of the podium/lower floors. The extent of building setback, however, depends on the width of the existing street.
- 2.3 In the situation where a significant portion of the site may be required to be set back resulting in development constraints particularly in cases of small sites or sites having a long street frontage, SBDG has made provision that the maximum land area to be set back could be capped at 15% of the site area if compensatory measures including full height/frontage setback and prescribed greenery areas are provided.
- 2.4 In this connection, the maximum reduction in SC in podium/lower floors to meet the building setback requirement would be 15% of the site area and the GFA incurred would depend on the number of podium storeys affected. A composite development would generally involve residential tower(s) over a two-storey or three-storey podium¹. To accommodate the floor space so displaced, an additional storey may be required². The impact of the option of providing a cross-ventilated communal podium garden, if adopted, would be an additional storey with a BH of about 5m.

Building Separation

- 2.5 In devising building separation, there would be more variations in design options for the Low Zone (i.e. 0-20m) which is usually occupied by continuous podium floors having long façade length and 100% SC. Some of the floor space would need to be redistributed from lower to upper floors to allow for the prescribed building separations. For the tower block at the assessment zones above, the maximum façade length and the 20% to 33% permeability requirements could usually be met without much difficulty given that the size of tower block is already capped by the maximum permissible SC (i.e. 60% to 65% for non-domestic buildings and 33.33% to 40% for domestic buildings) under Building (Planning) Regulations (B(P)R).

¹ A three-storey podium of 100% SC for commercial use for composite development is not so common unless the non-domestic PR is to be maximized.

² The estimate is based on the assumption that the maximum domestic GFA will be adopted for a composite development. If non-domestic GFA is to be maximised instead, another additional storey may be required depending on site classification.

- 2.6 To cater for possible difficulties in meeting the building separation requirement in the Low Zone, SBDG has allowed flexibility to waive such requirement if less dominating building bulk and adequate setback along street frontage are provided. The maximum SC allowed in this alternative design is set at 65%. The impact on BH for a composite development would be equivalent to about two storeys. It should be noted that the above reduction in SC and setback could also be counted towards the building setback requirement mentioned in paragraphs 2.2 to 2.4 above. Hence, the cumulative impact of building setback and building separation on BH would be about two storeys³ or about 6m (depending on building types and floor-to-floor height (FTFH)).

Site Coverage of Greenery

- 2.7 Since greenery can usually be provided within the building setback area, at podium floors or in form of vertical greening etc., the requirement would unlikely have any significant implication on BH and building massing.

3. Assumptions for Assessment of Building Height

- 3.1 To estimate the implications of SBDG on BH, a conservative approach is adopted. It is assumed that the maximum achievable SC for the podium/lower floors to meet the building setback requirement is 85%, and that for meeting the building separation requirement is 65%. BH will then be derived based on the types of building (domestic, non-domestic or composite building), site classification and corresponding permissible PR and SC under B(P)R, possible GFA concessions, podium height up to 15m, FTFH, provision of carpark at basement level and refuge floor requirement.
- 3.2 However, it should be noted that the assessment is only generic one where site-specific constraints have not been factored. For sites with odd shape and constraints, for example, sites with narrow and elongated site configuration abutting narrow streets may constrain future redevelopment in achieving the building separation requirements under SBDG, notional schemes may need to be drawn up for assessing the possible building profiles and BH.

³ The estimate is based on the assumption that the maximum domestic GFA will be adopted for a composite development. If non-domestic GFA is to be maximised instead, another additional storey may be required depending on site classification.

Basic Assumptions and Implications of Sustainable Building Design Guidelines
adopted in the Review for the Kwai Chung area

Assumptions

Floor to Floor Height (m)									
Residential (private)				3.15					
Commercial				4					
Podium				5					
Plot Ratio				Class A		Class B		Class C	
“R(A)” (Dom / Non-dom PR composite formula)				5/9.5					
“R(A)1”				(Dom. / Non-dom. GFA specified as 42,700m ² and 9,346m ²)					
“R(A)2” (Dom / Non-dom PR composite formula)				6/9.5					
“R(E)”				5					
“C”				9.5					
“OU(B)”				9.5					
“T”				9.5					
“CDA”				5					
GFA Concessions [a]									
Residential and Composite Commercial/ Residential Commercial				20%					
				25%					
Site Coverage		Basic Building Profile		SBDG Building Setback + Basic Building Profile			SBDG Building Separation + Basic Building Profile		
Class of Site	A	B	C	A	B	C	A	B	C
Podium (%)	100			85			65		
Residential (%)	33.3	37.5	40	33.3	37.5	40	33.3	37.5	40
Commercial (%)	60	62.5	65	60	62.5	65	60	62.5	65

Estimated Absolute BH based on above Assumptions

	Basic Building Profile (m)			SBDG Building Setback + Basic Building Profile (m)			SBDG Building Separation + Basic Building Profile (m)		
Class of Site	A	B	C	A	B	C	A	B	C
Residential (“R(A)”) Pure dom.	56.7	50.4	47.25	56.7	50.4	47.25	56.7	50.4	47.25
“R(A)” w/3 storey non-dom podium	55.95	52.8	49.65	59.1	52.8	52.8	62.25	55.95	52.8
“R(A)1” w/2 storey non-dom podium	63.55			63.55			63.55		
“R(A)2” Pure dom.	69.3	59.85	56.7	69.3	59.85	56.7	69.3	59.85	56.7
“R(A)2” w/3 storey non-dom podium	65.4	59.1	55.95	68.55	62.25	59.1	71.7	65.4	62.25
“R(E)” Pure dom.	56.7			56.7			56.7		
“R(E)” Pure non-dom.	39			43			47		
“R(E)” w/3 storey non-dom podium	43.4			46.5			52.8		
“OU(B)” and “C” w/3 storey non-dom podium	75	71	71	79	75	71	83	79	75
“T” w/3 storey non-dom podium	75	71	71	79	75	71	83	79	75
“CDA” (Kau Wa Keng) Pure dom.	56.7	50.4	47.3	56.7	50.4	47.3	56.7	50.4	47.3
“CDA” (Kau Wa Keng) Pure non-dom.	39	39	51	43	39	55	47	43	59
“CDA” (Kau Wa Keng) w/3 storey non-dom podium	43.4	40.2	40.2	46.5	43.4	43.4	52.8	49.7	46.5

Estimated No. of Storeys based on above Assumptions

Class of Site	Basic Building Profile (No. of storeys/ Over No. of podium) [b]			SBDG Building Setback + Basic Building Profile (No. of storeys/ Over No. of podium)			SBDG Building Separation + Basic Building Profile (No. of storeys/ Over No. of podium)		
	A	B	C	A	B	C	A	B	C
“R(A)” Pure dom.	18s/ 0p	16s/ 0p	15s/ 0p	18s/ 0p	16s/ 0p	15s/ 0p	18s/ 0p	16s/ 0p	15s/ 0p
“R(A)” w/3 storey non-dom podium	13s/ 3p	12s/ 3p	11s/ 3p	14s/ 3p	12s/ 3p	12s/ 3p	15s/ 3p	13s/ 3p	12s/ 3p
“R(A)1” w/2 storey non-dom podium	17s/ 2p			17s/ 2p			17s/ 2p		
“R(A)2” Pure dom.	22s/ 0p	19s/ 0p	18s/ 0p	22s/ 0p	19s/ 0p	18s/ 0p	22s/ 0p	19s/ 0p	18s/ 0p
“R(A)2” w/3 storey non-dom podium	16s/ 3p	14s/ 3p	13s/ 3p	17s/ 3p	15s/ 3p	14s/ 3p	18s/ 3p	16s/ 3p	15s/ 3p
“R(E)” Pure dom.	18s/ 0p			18s/ 0p			18s/ 0p		
“R(E)” Pure non-dom.	6s/ 3p			7s/ 3p			8s/ 3p		
“R(E)” w/3 storey non-dom podium	9s/ 3p			10s/ 3p			12s/ 3p		
“OU(B)” and “C” w/3 storey non-dom podium	15s/ 3p	14s/ 3p	14s/ 3p	16s/ 3p	15s/ 3p	14s/ 3p	17s/ 3p	16s/ 3p	15s/ 3p
“I” w/3 storey non-dom podium	15s/ 3p	14s/ 3p	14s/ 3p	16s/ 3p	15s/ 3p	14s/ 3p	17s/ 3p	16s/ 3p	15s/ 3p
“CDA” (Kau Wa Keng) Pure dom.	18s/ 0p	16s/ 0p	15s/ 0p	18s/ 0p	16s/ 0p	15s/ 0p	18s/ 0p	16s/ 0p	15s/ 0p
“CDA” (Kau Wa Keng) Pure non-dom.	6s/ 3p	6s/ 3p	9s/ 3p	7s/ 3p	6s/ 3p	10s/ 3p	9s/ 3p	7s/ 3p	11s/ 3p
“CDA” (Kau Wa Keng) w/3 storey non-dom podium	9s/ 3p	8s/ 3p	8s/ 3p	10s/ 3p	9s/ 3p	9s/ 3p	12s/ 3p	11s/ 3p	10s/ 3p

General Notes:

[a] The assumption takes into account (i) the average GFA (e.g. plant rooms, etc. other than car parks)” for non-domestic buildings of 15% under the “Sample Study on GFA Concessions Granted to Buildings” conducted by a Government inter-departmental working group led by the Buildings Department in 2006; and (ii) the overall cap of 10% for the total amount of GFA concession for green/amenity features and non-mandatory/non-essential plant rooms and services under APP-151.

[b] In general, roof-top structures accommodating GFA exempted facilities and occupying not more than 50% of the area of the floor below will not be counted as a storey.

Basic Assumptions and Implications of Sustainable Building Design Guidelines
adopted in the Review for the Site

Assumptions

Floor to Floor Height (m)			
Residential (private)			3.15
Commercial			4
Podium			5
Site Classification			Class C
Plot Ratio			
“CDA” (total PR under OZP)			6.36
GFA Concessions [a]			
Residential and Composite Commercial/ Residential Commercial			20% 25%
Site Coverage	Basic Building Profile under OZP (m)	SBDG Building Setback + Basic Building Profile (m)	SBDG Building Separation + Basic Building Profile (m)
Class of Site	C	C	C
Podium (%)	100	85	65
Residential Tower (%)	40	40	40
Commercial (%)	65	65	65

Estimated Absolute BH/No. of Storeys based on above Assumptions

	Basic Building Profile under OZP (m)			SBDG + Abutting one narrow street (m)			SBDG + Long Façade, Max. 65% Site Coverage (m)		
Class of Site	C			C			C		
	Pure Dom.	Pure Non-Dom.	With Non-Dom. Podium	Pure Dom.	Pure Non-Dom.	With Non-Dom. Podium	Pure Dom.	Pure Non-Dom.	With Non-Dom. Podium
Absolute BH	59.85	47	52.8	59.85	51	55.95	59.85	55	60.95
No. of Storeys	19s/0p	8s/3p	12s/3p	19s/0p	9s/3p	13s/3p	19s/0p	10s/3p	13s/4p
Plot Ratio (Max.) under OZP	6.36	6.36	6.36	6.36	6.36	6.36	6.36	6.36	6.36
Dom. PR (Assumed or as proposed in Application No. A/KC/444)			4.55			4.55			4.55
Respective Non-Dom PR (under OZP restriction)			1.81			1.81			1.81

General Notes:

- (a) The assumption takes into account
 - (i) the average GFA (e.g. plant rooms, etc. other than car parks) for non-domestic buildings of 15% under the “Sample Study on GPA Concessions Granted to Buildings” conducted by a Government inter-departmental working group led by the Buildings Department in 2006; and (ii) the overall cap of 10% for the total amount of GFA concession for green/amenity features and non-mandatory/non-essential plant rooms and services under APP-151.
- (b) In general, roof-top structures accommodating GFA exempted facilities and occupying not more than 50% of the area of the floor below will not be counted as a storey.

Review of Development Restrictions on Kwai Chung Outline Zoning Plan

1. Overview

1.1 The assumptions adopted for the Review are explained in **Annex C1** and detailed in **Annex C2**. The scope of the Review covers the amendments stipulated under the Kwai Chung Outline Zoning Plan (OZP) No. S/KC/26 (the subject OZP), including building height restrictions (BHRs) mainly within the “Commercial” (“C”), “Other Specified Uses” annotated “Business” (“OU(B)”), “Industrial” (“I”), “Residential (Group A)” (“R(A)”), “Residential (Group E)” (“R(E)”) and “Comprehensive Development Area” (“CDA”) zones as well as the non-building area (NBA) and building gap (BG) on Kwai Chung OZP (see **Plan 7**).

1.2 The Review concluded that no amendment to the BHR, NBA and BG requirements in the OZP is required.

2. Review of Building Height Restrictions (BHRs)

“R(A)”, “Residential (Group A)1” (“R(A)1”), “Residential (Group A)2” (“R(A)2”) and “R(E)” Sites for Private Developments or Home Ownership Schemes

2.1 For all “R(A)” and “R(E)” sites, the existing BHRs should be able to accommodate the permissible plot ratio (PR)/gross floor area (GFA) taking into account site classifications, site formation level and sustainable building design guidelines (SBDG) requirements.

“R(A)”	Kwai Hong Court, Yi Fung Court, Greenknoll Court, Ning Fung Court, Highland Park, Hibiscus Park, Hang King Garden	
	(Permissible Dom./Total PR – 5/9.5)	
	BHRs	90mPD to 260mPD
“R(A)1”	Building heights (BHs) required to accommodate PRs permitted under OZP taking into account SBDG requirements	54mPD to 231mPD
	Nob Hill (Permissible Dom./Non-dom. GFA – 42,700m ² and 9,346m ²)	
	BHR	120mPD
“R(A)2”	BH required to accommodate GFAs permitted under OZP taking into account SBDG requirements	70mPD
	Lai Kong Street (Permissible Dom./Total PR – 6/9.5)	
	BHR	240mPD
	BH required to accommodate PRs permitted under OZP taking into account SBDG requirements	225mPD

“R(E)”	Kerry TC Warehouse on Kin Chuen Street (Permissible Total PR – 5)	
	BHR	130mPD
	BH required to accommodate PRs permitted under OZP taking into account SBDG requirements	76mPD to 86mPD

“R(A)” and “R(E)” Sites for Public Housing Developments

2.2 The BHRs for the public housing sites stipulated under the subject OZP generally reflected existing/committed BHs of majority of the public housing estates. Housing Department (HD) has no programme to redevelop the housing estates at this juncture. There is an established mechanism for considering redevelopment of public housing sites in which each site will be reviewed case-by-case for the optimal development intensities/requirements when there are redevelopment plans in future.

“OU(B)” and “C” Sites

2.3 For all “OU(B)” and “C” sites, the existing BHRs should be able to accommodate the permissible PR/GFA taking into account site classifications and SBDG requirements.

“OU(B)”	In Planning Area 27 (Ta Chuen Ping Street and Chun Ping Street), Planning Area 28 (Kin Chuen Street) and Planning Area 29 (Tai Lin Pai Road) (Permissible Total PR – 9.5)	
	BHRs	105mPD to 150mPD
	BHs required to accommodate PRs permitted under OZP taking into account SBDG requirements	85mPD to 118mPD
“C”	Around Kwai Fong MTR Station, Kwai Hing MTR Station and Wo Yi Hop Road (Permissible Total PR – 9.5)	
	BHRs	90mPD to 170mPD
	BHs required to accommodate PRs permitted under OZP taking into account SBDG requirements	82mPD to 114mPD
“C(1)”	The Wonderland Villa Commercial Complex (Permissible non-dom GFA of 11,000 m ²)	
	BHR	225mPD
	BH required to accommodate PRs permitted under OZP taking into account SBDG requirements	224mPD
“C(2)”	The Apex (1 hotel block and 2 service apartment blocks) on Wo Yi Hop Road (Permissible non-dom GFA of 74,340 m ²)	
	BHR	190mPD
	BH required to accommodate PRs permitted under OZP taking into account SBDG requirements	60mPD
“C(3)”	The TK83 (83 Tai Lin Pai Road) (Permissible Total PR – 9.5)	

	BHR	105mPD
	BH required to accommodate PRs permitted under OZP taking into account SBDG requirements	91mPD

“T” Sites

- 2.4 For the “T” sites, the existing BHRs should be able to accommodate the permissible PR/GFA taking into account site classifications and SBDG requirements.

“T”	Eastern Industrial Area and Western Industrial Area (Permissible Total PR – 9.5)	
	BHRs	90mPD to 140mPD
	BHs required to accommodate PRs permitted under OZP taking into account SBDG requirements	81mPD to 124mPD

“CDA” Site

- 2.5 For the “CDA” site in Kau Wa Keng, the existing BHRs should be able to accommodate the permissible PR/GFA taking into account site classifications and SBDG requirements.

“CDA”	Kau Wa Keng (Permissible Total PR – 5)	
	BHR	120mPD
	BH required to accommodate PRs permitted under OZP taking into account SBDG requirements	64mPD to 80mPD

3. Review of NBAs and BGs Requirements

- 3.1 NBAs and BGs were stipulated on the subject OZP taking into account recommendation in the Air Ventilation Assessment (AVA) by Expert Evaluation (EE). The former can facilitate air ventilation of the Area while the latter plays a key role in creating air paths by appropriate design and disposition of building blocks. In general, the NBAs and BGs are stipulated following the alignment of major roads in the area and serve to extend/widen these breezeways. These NBAs and BGs are stipulated to provide design guidance upon redevelopment of the sites and existing development would not be affected (**Plans 7, 7a and 7b**). The following assessment would focus on the development zones where SBDG requirements are tested.

Sites with NBA only

Eastern Sub-area

Lam Tin Street (between Chun Pin Street and Castle Peak Road) (Item No. 1 on Plans 7 and 7a)		
	9m-wide NBA	
“OU(B)”	Permissible Total PR	9.5
	BHR	130mPD
	BH required to accommodate PR permitted under OZP with NBA	97mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	105mPD
“R(A)”	Permissible Dom./Total PR	5/9.5
	BHR	120mPD
	BH required to accommodate PR permitted under OZP with NBA	79mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	82mPD

Lot boundary abutting Lam Tin Street (Item No. 2 on Plans 7 and 7a)		
	Minimum 4m-wide NBA	
“OU(B)”	Permissible Total PR	9.5
	BHR	130mPD
	BH required to accommodate PR permitted under OZP with NBA	107mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	111mPD

Lot boundary abutting Chun Pin Street (except 1 Chun Pin Street) and Ta Chuen Ping Street (except 26-38, 68, 70, 85-89 and 93 Ta Chuen Ping Street) (Item No. 3 on Plans 7 and 7a)		
	Minimum 3.5m-wide NBA	
“OU(B)”	Permissible Total PR	9.5
	BHR	130mPD
	BH required to accommodate PR permitted under OZP with NBA	105mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	109mPD

Central Sub-area

Kwai Wing Road and Kwai Cheong Road (Item No. 4 on Plans 7 and 7b)		
	15m-wide NBA	
“OU(B)”	Permissible Total PR	9.5
	BHR	105mPD
	BH required to accommodate PR permitted under OZP with NBA	80mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	88mPD

Wo Yi Hop Road and Wah Sing Street (Item No. 5 on Plans 7 and 7b)		
	11.5m to 33.4m-wide NBA	
“OU(B)”	Permissible Total PR	9.5
	BHR	105mPD
	BH required to accommodate PR permitted under OZP with NBA	94mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	102mPD
“T”	Permissible Total PR	9.5
	BHR	120mPD
	BH required to accommodate PR permitted under OZP with NBA	98mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	106mPD

Kwai Chung Road and Tai Lin Pai Road (with Kung Yip Street to the east) (Item No. 6 on Plans 7 and 7b)		
	15m-wide NBA	
“OU(B)”	Permissible Total PR	9.5
	BHR	105mPD
	BH required to accommodate PR permitted under OZP with NBA	79mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	83mPD

Kwai Chung Road and Tai Lin Pai Road (with Tai Lin Pai Road Playground to the east) (Item No. 7 on Plans 7 and 7b)		
	15m-wide NBA	
“OU(B)”	Permissible Total PR	9.5
	BHR	105mPD
	BH required to accommodate PR	79mPD

	permitted under OZP with NBA	
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	87mPD

Kwai Chung Road and Kwai Cheong Road (Item No. 8 on Plans 7 and 7b)		
	15m-wide NBA	
“OU(B)”	Permissible Total PR	9.5
	BHR	105mPD
	BH required to accommodate PR permitted under OZP with NBA	77mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	85mPD

Kwai Chung Road and Kwai Ting Road (Item No. 9 on Plans 7 and 7b)		
	15m-wide NBA	
“OU(B)”	Permissible Total PR	9.5
	BHR	105mPD
	BH required to accommodate PR permitted under OZP with NBA	87mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	95mPD

Waterfront Sub-area

Kwai Lok Street (between Tsuen Wan Road and Kwai Hei Street) (Item No. 10 on Plan 7)		
	15m-wide NBA	
“T”	Permissible Total PR	9.5
	BHR	90mPD
	BH required to accommodate PR permitted under OZP with NBA	80mPD
	BH required to accommodate PR permitted under OZP taking into account NBA and SBDG	88mPD

- 3.2 Four NBAs within the “OU(Container Terminal)” zone which were subsequently stipulated to facilitate the air ventilation for the Kwai Chung Container Terminals following an air ventilation assessment completed in 2015 for assessing the air ventilation impact of the proposed BHR for that area were excluded.

Sites with BG only

Site stipulated with BG in “OU(B)” zone

Tai Lin Pai Road (Item A on Plans 7 and 7b) (Permissible Total PR 9.5)	
Width of BG	7.5m
BHR at BG	25mPD
BHR	105mPD
BH required to accommodate PR permitted under OZP with BG	98mPD
BH required to accommodate PR permitted under OZP taking into account BG and SBDG	102mPD

3.3 The following should be noted:

- (a) as the BG is stipulated with BHR of 25mPD, it will not affect the SBDG requirements at podium levels (assumed to be at a level below 20mPD); and
- (b) the area of the BG is only about 21.4% of the individual lots (i.e. developable area of 78.6% above 25mPD). This requirement should not affect achieving the maximum permissible non-domestic site coverage under the Buildings Ordinance above the podium level (i.e. 60%, 62.5% and 65% for Class A, B and C sites respectively).

Sites stipulated with BG in “T” zone

103-133 Tai Lin Pai Road and the southwestern corner of 11-19 Wing Yip Street (Item B on Plans 7 and 7b) (Permissible Total PR 9.5)	
Width of BG	15m
BHR at BG	18mPD
BHR	120mPD
BH required to accommodate PR permitted under OZP with BG	87mPD
BH required to accommodate PR permitted under OZP taking into account BG and SBDG	95mPD

3.4 The following should be noted:

- (c) as the BG is stipulated with BHR of 18mPD, it will not affect the SBDG requirements at podium levels (assumed to be at a level below 20mPD); and
- (d) the area of the BG is only about 2.7% of the individual lots (i.e. developable area of 97.3% above 18mPD). This requirement should not affect achieving the maximum permissible non-domestic site coverage under the Buildings Ordinance above the podium level (i.e. 60%, 62.5% and 65% for Class A, B and C sites respectively).

Kwai Hei Street (Item C on Plan 7) (Permissible Total PR 9.5)	
Width of BG	50m
BHR at BG	24mPD
BHR	120mPD
BH required to accommodate PR permitted under OZP with BG	94mPD
BH required to accommodate PR permitted under OZP taking into account BG and SBDG	102mPD

3.5 The following should be noted:

- (e) as the BG is stipulated with BHR of 24mPD, it will not affect the SBDG requirements at podium levels (assumed to be at a level below 20mPD); and
- (f) the area of the BG is only about 5.6% of the individual lots (i.e. developable area of 94.4% above 24mPD). This requirement should not affect achieving the maximum permissible non-domestic site coverage under the Buildings Ordinance above the podium level (i.e. 60%, 62.5% and 65% for Class A, B and C sites respectively).

Site stipulated with BG in “R(A)” zone

Lai King Hill Road (Item D on Plan 7) (Permissible Dom./Total PR – 5/9.5)	
Width of BG	35-217m
BHR at BG	24mPD
BHR	130mPD
BH required to accommodate PR permitted under OZP with BG	81mPD
BH required to accommodate PR permitted under OZP taking into account BG and SBDG	84mPD

3.6 The following should be noted:

- (g) as the BG is stipulated with BHR of 24mPD, it will not affect the SBDG requirements at podium levels (assumed to be at a level below 20mPD); and
- (h) the area of the BG is only about 9% of the individual lots (i.e. developable area of 91% above 24mPD). This requirement should not affect achieving the maximum permissible non-domestic site coverage under the Buildings Ordinance above the podium level (i.e. 60%, 62.5% and 65% for Class A, B and C sites respectively).

Site stipulated with BG in “R(A)2” zone

Lai Kong Street (Item E on Plan 7) (Permissible Dom./Total PR – 6/9.5)	
Width of BG	30m

BHR at BG	163mPD
BHR	240mPD
BH required to accommodate PR permitted under OZP with BG	218mPD
BH required to accommodate PR permitted under OZP taking into account BG and SBDG	224mPD

3.7 The following should be noted:

- (i) as the BG is stipulated with BHR of 24mPD, it will not affect the SBDG requirements at podium levels (assumed to be at a level below 20mPD); and
- (j) the area of the BG is only about 22.5% of the individual lots (i.e. developable area of 77.5% above 163mPD). This requirement should not affect achieving the maximum permissible non-domestic site coverage under the Buildings Ordinance above the podium level (i.e. 60%, 62.5% and 65% for Class A, B and C sites respectively).

4. Conclusion

In view of the above, it is concluded that the permissible PR/GFA under the respective zoning are attainable after taking into account the BHRs, NBAs/BGs as well as SBDG requirements. Since these NBAs and BGs are stipulated based on the recommendations of the AVA to facilitate and enhance air ventilation and that there is no change in planning circumstances since then, they are recommended to be retained.

**Urban Design Appraisal
for Proposed Amendments to
The Approved Kwai Chung Outline Zoning Plan No. S/KC/25**

1. Background and Purpose

- 1.1 In order to provide better planning control on the building height (BH) upon development/redevelopment and to meet public aspirations for better living condition and greater certainty and transparency in the statutory planning system, Planning Department (PlanD) has been reviewing the approved Kwai Chung Outline Zoning Plan (OZP) No. S/KC/25 with a view to incorporating BH restrictions for various development zones to guide future development/redevelopment.
- 1.2 The main objectives of this paper are to analyse key spatial and visual attributes that define and shape the Kwai Chung Planning Scheme Area (the Area), provide principles and considerations for guiding the formulation of BH restrictions from urban design perspectives, and assess the visual impacts of the proposed BH restrictions.

2. Spatial Context and Profile of the Area

General Context

- 2.1 The Area (about 1,025 ha) is situated to the northwest of Kowloon, stretching from Tsuen Wan on the north to Lai Chi Kok on the south, and from Golden Hill on the east to Rambler Channel on the west. Tsing Yi is located to the further west across the Channel. The northern boundary of the Area is delimited by Tsing Tsuen Road, Texaco Road, Castle Peak Road, Wo Yi Hop Road and Cheung Pei Shan Road, and the southern boundary by Ching Cheung Road. The Area is mainly served by Mass Transit Railway (MTR) Tsuen Wan Line with stations at Lai King, Kwai Fong and Kwai Hing. A number of major distributors, such as Kwai Chung Road, Castle Peak Road and Tsuen Wan Road, pass through the Area and make connections with other parts of Kowloon and New Territories.
- 2.2 Topographically, the Area is a southwest-facing valley defined by the foothills of Golden Hill to the east, the outcrop of Kwai Shing Circuit to the northwest and the water body of the Rambler Channel to the southwest. The valley floor, now home to Kwai Fong, was originally a cove known as Gin Drinker's Bay (醉酒灣) and subsequently reclaimed for development in the 1960s. The Area is largely developed, comprising high-rise public and private residential developments across the area. General industrial/ business areas are found along Castle Peak Road/ Wo Yi Hop Road in the north, Kwai Chung Road in the central and Tsuen Wan Road in the southwest. In terms of both the number of industrial buildings and the amount of floor space, these industrial/ business areas collectively is one of the major providers in Hong Kong⁽¹⁾.
- 2.3 Based on the existing configuration of the cityscape, the Area can be broadly sub-divided into six different character sub-areas (**Plans 3A and 3A-1 to 3A-6 of MPC Paper No.**

⁽¹⁾ Report on Area Assessments 2009 of Industrial Land in the Territory, Planning Department

6/12 (the Paper)) in terms of the topography, local character, general streetscape and key spatial/ physical attributes as follows:

- Central Sub-area;
- Eastern Sub-area;
- Kwai Shing Sub-area;
- Ha Kwai Chung Sub-area;
- Waterfront Sub-area; and
- Golden Hill Foothill Sub-area.

Local Context

Central Sub-area (Plan 3A-1 and photos on Plan 3C of the Paper)

- 2.4 This sub-area exhibits the highest degree of vibrancy, visual interest and movements at the street level. The urban form is diverse with commercial/residential podium developments near MTR Kwai Hing and Kwai Fong Stations, ‘square-like’ 1970’s developments of tenement blocks around public open space in Kwai Fong (at Shun Fong Street/Yan Fong Street/Shing Fong Street/Lai Fong Street) and in Kwai Hing (at Kwong Fai Circuit), high-rise public rental housing (PRH) blocks at Kwai Hing and Kwai Fong Estates, and conventional large footprint industrial/commercial buildings on Tai Lin Pai Road. The sense of enclosure is strong at the industrial/commercial area, where compact medium-rise developments flank the heavily-trafficked streets. The area around Tai Lin Pai Road has been a well-established employment district since the 1970’s. The sense of place is strongest at the two urban ‘squares’, which exhibit richness in character and self identity – particularly aided by the juxtaposition of small active uses on the ground floors of the narrow lots and the tranquil park as the central focus (**Plan 3F of the Paper**). The urban morphology can broadly be described as a loose grid layout situated on flat terrain, with Kwai Chung Road and Hing Fong Road being the primary axles of the cityscape through which the subsidiary paths feed off from. The subsequent road network is permeable and legible, which facilitates pedestrian movement within walkable distances.

Eastern Sub-area (Plan 3A-2 and photo on Plan 3C of the Paper)

- 2.5 This sub-area generally exhibits the image as a secondary centre to the urban core, which accommodates a range of uses and activities. Tenement blocks and small-scale podium developments can be found along Castle Peak Road and the southern section of Wo Yi Hop Road, whilst high-rise, free-standing PRH blocks on large plots of land are found on the higher terrains at the urban fringe to the north and east. Small pockets of open space are dotted across the sub-area, providing much-needed respite to the vibrant and enclosed street scene. Pedestrian movements and socioeconomic activities are confined to Wo Yi Hop Road and Shek Yam Road where the building lots are small, compared to the large footprints of the industrial/business premises along the heavily-trafficked Ta Chuen Ping Street. The area around this thoroughfare is a renowned employment district in the Area which is typified by large building bulk, a lack of designated open space, high levels of street enclosure and monotonous building façades. Government, institution or community (GIC) facilities can be found across the sub-area, with leisure/recreation facilities concentrated at the northern section of Wo Yi Hop Road.

Kwai Shing Sub-area (Plan 3A-3 and photo on Plan 3D of the Paper)

- 2.6 The urban form of the sub-area is mainly made up of high-rise, high-density, free-standing PRH blocks and low-rise GIC facilities with the only major exception being Kwai Chung Estate, which is high-rise on podium-type development in part of the estate. Due to the dominance of homogenous PRH estates and the lack of visual references, the area is devoid of a recognisable identity. The only uniqueness of the sub-area is derived from the knoll on which it stands. This hilly terrain has forced the layout of the overall road structure to follow existing contours. In contrast, the local network of pedestrian paths is more established, providing direct connections between the levels along desire lines. As a result of the intermitting open spaces at the PRH estates, the urban grain is somewhat coarse with a weak sense of enclosure at the street level. On a district level, the two GIC clusters along Hing Shing Road/Kwai Shing Circuit and Kwai Hop Street are recognisable sub-neighbourhoods in the area.

Ha Kwai Chung Sub-area (Plan 3A-4 and photos on Plans 3D and 3E of the Paper)

- 2.7 The sub-area roughly rests on sloping terrain falling gently from the east to the west, with the only major exception being the area around Kau Wah Keng, which is situated at the bottom of a small valley. The urban form is largely defined by high-rise, free-standing PRH blocks, with intermitting open spaces and low-rise GIC facilities scattered around. In contrast to Kwai Shing, where the siting of PRH estates seemingly merges with one another, a degree of transition can be observed between the various PRH estates at this sub-area, such as the low-rise GIC facilities separating Lai Yiu Estate and Lai King Estate, which helps distinguish each estate as separate entities (**Photo 1**). The Highland Park at Lai Fung Street, the Disciplined Services Quarters (DSQ) at Lai Chi Ling Road and Nob Hill at King Lai Path are of a podium design. Two pockets of low-rise village-style houses can be found at Kau Wa Keng and Ha Kwai Chung Village, where the urban grain is comparatively fine with limited or no vehicular access. The cluster of hospital facilities at the Kwai Chung Hospital and Princess Margaret Hospital are another key landmarks of the Area. A Grade 3 historic building, The Tsang Residence (2-storey), as well as 12 proposed Grade 3 historic building, including 10 old village houses, an ancestral hall and a study hall (1 to 2 storeys)⁽²⁾, are all located in Kau Wa Keng (**Plan 4D of the Paper**).

Waterfront Sub-area (Plan 3A-5 and photos on Plans 3D and 3E of the Paper)

- 2.8 Situated adjacent to Rambler Channel, this sub-area mainly consists of land-intensive sea freight-related uses, such as Container Terminal Nos. 1 to 5 and the Public Cargo Working Area facing the Rambler Channel, with the former being a symbolic landmark for the Area. A sizeable part of the sub-area is also occupied by the Tsuen Wan Chinese Permanent Cemetery, particularly visible from the west due to its position on a west-facing knoll. The streetscape is typified by custom-built structures, located sporadically across the coastal area and often situated away from the streets. Due to the presence of large transport infrastructures, the lack of legible and user-friendly connections to the urban core and the absence of active uses in the area, pedestrian traffic are comparatively low and the subsequent urban environment is bland. Natural surveillance and visual interest at the street scene is slightly enhanced at the “Industrial” (“I”) zones on either side of Tsuen Wan Road, where a strong sense of street enclosure is formed by the industrial buildings which tend to occupy the whole of the lot at the lower floors off narrow streets (**Photo 2**).

⁽²⁾ Source: Antiquities and Monument Office (as at 23.11.2011).

Golden Hill Foothill Sub-area (Plan 3A-6 and photo on Plan 3E of the Paper)

- 2.9 Stretching along the eastern fringe of the Area is the Golden Hill foothill sub-area, mainly zoned “Green Belt” (“GB”), sitting on a sloping terrain in a rural ambience with sporadic low-rise structures scattered around. The main exceptions being the two enclaves of medium-density residential developments at the “Residential (Group B)” (“R(B)”) zones at Wah King Hill Road, namely Wonderland Villas/Regency Park and Wah Yuen Chuen. The road layout is predominately of a meandering nature due to considerable level changes; there is also limited pedestrian connection to the urban core. Occasional low-rise GIC facilities can be found across the length of the sub-area, though the grounds of which are often extensive with restricted access, such as the covered reservoirs near Shing Mun Country Park to the north.

Spatial Attributes

- 2.10 The key attributes that shape the spatial structure of the Area are illustrated in **Plan 5 of the Paper** and can be summarised as follows:

(a) Green and Mountainous Backdrop

The Area is well-defined by a continuous green backdrop to the north, east and northwest, viz. the foothills of Tai Mo Shan and Golden Hill respectively. This mountainous backdrop, which abuts the Tai Mo Shan, Shing Mun and Kam Shan Country Parks, is only partially broken up by a small valley in the form of the Shing Mun Reservoir.

(b) Valley-like Terrain

The Area exhibits the profile of a valley-like terrain, as defined by the foothills of Golden Hill to the east and the outcrop of Kwai Shing and the Tsuen Wan Chinese Permanent Cemetery to the west. The exposed tops of the hill ridges and knolls on either side of the valley are visible from long and intermediate distances. The valley floor, formerly occupied by a cove known as the Gin Drinker’s Bay (醉酒灣), was reclaimed for development in the 1960’s. The key artery roads in the Central sub-area largely follow the shape of the valley in a northeast-southwest direction. Due to the narrow and elongated shape of the valley floor, the sides of the valleys are easily accessible from the Central Sub-area.

(c) Twin-nodal Development

The widest range of activities and uses can be found at the Central Sub-area, which caters for employment, cultural, leisure and other socioeconomic needs. Two areas of activity concentration can be found around MTR Kwai Fong Station and MTR Kwai Hing Station. The former accommodates a wide range of town centre uses, which also acts as a transport hub for the region, while the latter is primarily a transport interchange for the Area supplemented by some GIC facilities. As a reflection of their relative convenience, the building heights around the two nodes are comparatively higher than other parts of the Area. The tall clusters of buildings are also reinforced by landmark structures, such as Metroplaza (173.4mPD) at the former and Kowloon Commerce Centre (149.7mPD) at the latter.

(d) Breezeways

Apart from annual downwind from neighbouring hill slopes on the northeast to southeast, a large part of the Area is reliant on natural ventilation brought by sea breezes from the Rambler Channel, particularly in summer. Wind is channelled through to the inland area via thoroughfares along the valley trough, such as along Kwai Tsing Road, Hing Fong Road and Kwai Chung Road. Several breezeways can be identified along wider paths and low-rise areas, such as the proposed Kwai Chung Park and slope/GIC facilities along the foothill of Golden Hill. To safeguard the effectiveness of such breezeways, appropriate controls on the height and massing of developments at the coastal area are necessary.

(e) Well-defined Edges

Due to the Area's convenient location to various parts of Hong Kong, a number of main thoroughfares can be found within the Area. Of particular prominence are Route 3 (Tsing Kwai Highway) and Route 5 (Kwai Chung Road/Tsuen Wan Road), which run along the southwest part of the Area. The large highway infrastructures act as a prominent physical and visual barrier in separating the coast from the rest of the Area. To the west, Texaco Road and Castle Peak Road also act as physical barriers in separating the Area from Tsuen Wan.

3. Visual Assessment for the Kwai Chung Area

- 3.1 A visual assessment has been conducted as part of the BH review. Apart from an overview of the various visual elements, existing intermediate and long-distance views into, across and out of the Area, as well as short-distance views within the Area, have been considered.

Visual Attributes

- 3.2 The key attributes that shape the visual structure of the Area are illustrated in **Plan UD-1** and can be summarised as follow:

(a) Desirable Visual Elements

The siting of Kwai Chung has provided the Area with two key visual resources in the form of an elongated waterbody (Rambler Channel) and a backdrop of vegetated slopes (the foothills of the Tao Mo Shan, Shing Mun and Kam Shan Country Parks), located to the west and north/east of the Area respectively. In addition to direct views noted at particular vantage points, these visual elements can be appreciated on a more causal basis as they form the backdrop of everyday views.

The Rambler Channel is a major desirable visual resource for the Kwai Chung, Tsing Yi and Tsuen Wan areas. Opportunities for short-distance views to the Channel are currently limited by the presence of land-intensive, access-restricted uses, such as the Container Terminals and various cargo working areas by the coast (**Photo 1**). The immediate visual hinterland is also occupied by other access-restricted uses (e.g. the Hong Kong International BMX Park and Kwai Chung Park⁽³⁾) and uses that are not frequented by the public (e.g. the Tsuen Wan

⁽³⁾ The Kwai Chung Park is situated within the grounds of the former Gin Drinker's Bay Landfill, which closed in 1979. Landfill remedial and aftercare works are currently being undertaken by Environmental Protection Department.

Chinese Permanent Cemetery). Parts of the Area do enjoy intermediate views to the Channel, including the higher terrains of the Ha Kwai Chung and Golden Hill Foothill sub-areas. Apart from some degree of obstruction caused by the large massing of the logistics centres at the Container Terminals, the existing intermediate views from Ha Kwai Chung to the Channel remain largely uninterrupted.

As for the dramatic backdrop of vegetated slopes along the foothills of the Country Parks, this refreshing canvas of greenery is currently visible from across the Area. In terms of intermediate views, the only major area of intrusion is caused by the high-rise PRH estates of Shek Yam, On Yam and Shek Lei in the Eastern sub-area. The presence of major parks and walking trails to the east of the Area, including Central Kwai Chung Park and the established network of trail paths between Cheung Hang Village (長坑村) and Golden Hill, also enables the enjoyment of this visual asset from short-distances.

(b) Well-defined Visual Envelope

The topography of the region has created a natural, well-defined visual envelope for the Area. Of particular prominence is the continuous mountainous backdrop to the northwest, north, and east, which marks the full extent of the Tsuen Wan/Kwai Chung New Town. The natural bulge at Shek Lung Kung (石龍拱)/Yau Kom Tau (油柑頭) in the west, as well as the termination of the hills near Butterfly Valley (with Beacon Hill as the backdrop), clearly demarcates the New Town from the rest of the New Territories and Kowloon. This dramatic viewshed and ridgeline, which is best appreciated from the higher terrains of Tsing Yi Island (**Photo 3**), has largely been preserved as a result of the designation of the Country Parks and should be maintained to improve the visual quality of the Area.

The juxtaposition of lifting cranes and other container terminal-related paraphernalia by the coast also act as key reference points for the western boundary of the Area. Further to the south, the visual void created by the Lai Chi Kok Park helps delineate Kwai Chung from Mei Foo; the visual separation is enhanced by the sharp contrast between the verticality of the structures on the Kwai Chung side and the congruity of the medium-rise Mei Foo Sun Chuen to the southeast. The visual delineation between the Area and neighbouring districts is weakest to the northwest, where the medium- to high-rise developments at the Kwai Shing sub-area appear to simultaneously merge with the developments in the nearby eastern Tsuen Wan.

(c) Prominent Visual Corridors/ Vantage Points

The siting of the Rambler Channel has provided the region with two prominent visual corridors, with one running in an east-west axle (the strait between west Tsuen Wan and north Tsing Yi) and the other along a northwest-southeast axle (the strait between Kwai Chung and Tsing Yi) (**Photo 4**). As viewed from the western part of the Tsuen Wan waterfront promenade, the latter visual corridor is channelled by the developments of Riveria Garden in Tsuen Wan and Tierra Verde in Tsing Yi. The low-rise developments along the Kwai Chung coast and Stonecutter's Island have facilitated direct long-distance views towards various visual focuses along the corridor, including the anchorage towers of the

Stonecutter's Bridge, and further still, the landmark developments at West Kowloon Reclamation and Hong Kong Island.

As for natural features, the Tai Mo Shan peak is the highest point in Hong Kong and is the most prominent reference point in the territory. To the southeast, Beacon Hill can also be viewed from the two vantage points along the hiking trail of south Tsing Yi, the sightlines of which would encroach across the Ha Kwai Chung sub-area. The same applies to long-distance views towards Needle Hill, which also pass through the width of the Area. The two vantage points are of particular importance as they offer the only unobstructed panoramic views of Kwai Chung. While these natural features are largely hidden from view within the Area, the enjoyment of such features from vantage points beyond Kwai Chung should be respected. Appropriate clearance from the ridgeline should also be introduced to facilitate a thorough appreciation of such views.

(d) Significant Landmarks / Visual Anchors

A number of noticeable focus points can be observed along the skyline. The most prominent man-made feature is Wonderland Villas at Wah King Hill Road, which is visible within the Area and, further still, across most of the territory. At present, the prominent development dominates the skyline towards the southeast of the Area. While its design has utilised a height variation approach reflecting the vertical variance of the nearby hill ridges, due to its length, height and massing, the development is a visual detractor when viewed from the urban core to its southeast. The development is visible from as far as the coast of Sham Tseng in the west, Sun Yat Sen Memorial Park in Sai Ying Pun to the south and Tai Hang Tung Recreation Ground in Mong Kok to the east. It can even be visible from Victoria Peak of Hong Kong Island. The visibility of its exposed terrain makes it the most visually sensitive area (VSA) in the Area.

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The nearby developments of the Disciplined Services Quarters (DSQ) at Lai Chi Ling Road and Highland Park at Lai Fung Street are also visually prominent in the region. The area collectively forms another key VSA of the Area (**Photo 5a**). These developments are particularly noticeable when viewed from the west and south due to their uniformity in height and form, which also exemplifies their incongruity with the natural setting (**Photo 5b**).

At a local level, the Infectious Disease Centre at Block S of Princess Margaret Hospital is visible from intermediate distances from Tsing Yi and Kowloon. Towards the urban core, the Kowloon Commerce Centre at Kwai Hing and the Metroplaza at Kwai Fong are both prominent features in the Area. A number of relatively tall buildings at isolated locations, such as Ever Gain Plaza at Container Port Road, are local reference points in the urban fabric. Also of interest are the networks of flyovers, elevated highways and railway viaduct structures, which are particularly prevalent in the Waterfront sub-area. This labyrinth of structures tends to segregate and break up views into short-distance parcels, which disrupts the visual legibility therein. Beyond Kwai Chung, both the anchorage towers of the Stonecutter's Bridge and Nina Tower in Tsuen Wan are visually prominent man-made focuses when viewed from the Area.

(e) Low-rise Visual Relief Strip

One of the unique visual characteristics of the Area is the existence of a strip of low-rise GIC cum open space facilities connecting the two high-rise cores around

the MTR Kwai Hing Station and MTR Kwai Fong Station. Beginning from the sitting-out area at Kwai Yik Road, the 1.5km-long strip extends along the low-rise educational facilities at Hing Shing Road/Kwai Shing Circuit, opening up at the Kwai Shing Swimming Pool/Kwai Chung Sports Ground and running south towards the Kwai Tsing Theatre and beyond (**Photo 6**). In contrast with the neighbouring medium- to high-rise developments, the facilities along this strip are generally at 6 storeys or below. Not only does the strip provide much-needed visual and spatial relief to the dense urban core, the width of which (about 130m to 350m) also encourages air movement within the urban fabric. Due to the low-rise nature of the facilities at the southern foothill of the Kwai Shing knoll, the developments along the higher terrains of Kwai Luen Road and Kwai Hau Street are particularly exposed to views from the southeast (**Plan 8F of the Paper**).

(f) Visual Permeability

The urban morphology of Kwai Chung largely reflects the topographical context of the former Gin Drinker's Bay. As a result of reclamation in the 1960's, the road layout at the reclaimed land is ordered and roughly follows a deformed grid pattern, with the main artery roads running predominately in a northeast-southwest direction, parallel to the direction of the former cove. The roads on either sides of the former cover at Kwai Shing, Chung Kwai Chung and Ha Kwai Chung largely follow the sinuous contours of the gentle valley. The urban morphology of the Area is in contrast to neighbouring Tsuen Wan and Mei Foo, where the main urban axles and vistas are situated in a northwest-southeast direction, generally reflecting the succession of reclamation along the main shores.

Due to the implications in overcoming level changes, the linear road structure of the flat urban core tends to be broken up by the meandering roads on both sides of the gentle valley. As a result, visual permeability is restricted to the core area, where streets and vistas are more uniformed. Existing vistas from the urban core to other areas are often terminated or deflected by the developments along the sinuous foothills. This observation reinforces the need to safeguard the existing visual reliefs in the core area, for instance the aforementioned low-rise strip along Hing Shing Road/Kwai Shing Circuit and the densely vegetated slopes between Tai Wo Hau Road and Kwai Shing Circuit. Furthermore, it suggests that there may be opportunities in opening up new vistas from the urban core to the visual resource (the green mountainous backdrop) in the east.

4. Urban Design Principles

4.1 In conducting the BH review, the broad urban design principles set out in the Urban Design Guidelines (Chapter 11 of the Hong Kong Planning Standards and Guidelines) should be taken into consideration, viz. the site context, topography, local character, existing BH profile (**Plan 4A of the Paper**), predominant land uses, etc. The urban design principles considered and adopted in formulating the BH control for the Area are as follows:

- the green mountain backdrop on the northwest, north, and east should be preserved;
- a stepped BH concept that respects the natural topographic profile should be adopted;

- excessively tall buildings should be avoided in the waterfront area in order to preserve the sea breezes to the inland and views to the greenery hillsides;
 - the views to/within the Area from major vantage points and local vantage points (**Plan UD-1**) should be taken into account as far as possible;
 - the BH profile should be sympathetic and compatible in scale and proportion with the topographical and landscape setting;
 - the setting and views towards existing/ proposed heritage buildings (including the Grade 3 historic building and 12 proposed graded historic buildings in Kau Wa Keng as mentioned in paragraph 2.7 above) should be protected; and
 - existing vistas and major air paths should be preserved. Open spaces and low-rise GIC and “Other Specified Uses” (“OU”) sites should be retained to serve as visual and spatial relief and breathing space.
- 4.2 In addition, the review has taken into consideration the recommendations of the air ventilation assessment (AVA) (**Attachment VII of the Paper**), particularly the requirement to maintain the existing height profile of the low-rise “G/IC” sites and the “Open Space” (“O”) and “Green Belt” (“GB”) zones as visual and spatial relief, providing breathing space and air paths for the Area in general and the designation of several non-building areas and building gaps to facilitate penetration of wind in the Area.
- 4.3 In formulating the BHRs, it should be ensured that upon incorporation of the restrictions, private development sites (except for “Government, Institution or Community” (“G/IC”) and some “OU” sites) would be able to accommodate the maximum plot ratio / GFA permissible under the OZP, taking into account building design constraints and the development restrictions under the lease. The proposed BH bands would ensure that the urban design principles would not be negated while still accommodating the permissible development intensity under the OZP. For “G/IC” and “OU” sites (except “OU” annotated “Business” (“OU(B)”) zone), they are planned for a wide range of uses of different nature and scale and should be considered on a case-by-case basis in determining their site utilisation, rendering stipulation of plot ratio restriction on the OZP impractical. Moreover, as a general rule, for an existing building exceeding the proposed height limits, it will not be affected by the restriction.

5. **Urban Design Concept**

- 5.1 Taking into account the spatial and visual appraisal depicted in paragraphs 2 and 3 as well as the urban design principles and considerations mentioned in paragraph 4 above, the BH profile for the Area is formulated based on the following concepts (**Plan 8A of the Paper**):
- (a) *Preserving the Mountainous Backdrop*
As a defining feature of the territory’s natural terrain, the mountainous backdrop of the Area should be preserved. Not only does its juxtaposition with urban developments provide visual interest to the cityscape, the vegetated slopes are also valuable visual relief to the densely-populated urban areas. The hill ridges to the

north and east also act as a natural visual envelope in defining the viewshed for the Tsuen Wan/Kwai Chung area as visible from the southeast. In this regard, it is important to safeguard the ridgeline from further urban intrusion, especially when viewed from the vantage points along the coast of east/northeast Tsing Yi and the hiking trail along the hills of south Tsing Yi. These locations are the few remaining public vantage points where the entire length of the Tsuen Wan/Kwai Chung viewshed, from Shek Lung Kung in the west to Beacon Hill in the southeast, can be fully appreciated.

(b) *Safeguarding the Coastal Area and Breezeways*

Due to the location of the urban core being situated at some distance away from the coast, the existing breezeways that provide natural ventilation to the Area should be safeguarded. Appropriate setbacks should also be imposed to enable wind movement along existing breezeways wherever necessary. The siting, massing and height of developments at the coastal area should respect the need for ventilation in the hinterland. Developments in the coastal area should also be of a low-rise nature so as to safeguard the existing visual corridor and its desirable long-distance views of the Stonecutter's Bridge, West Kowloon and Hong Kong Island.

(c) *Exemplifying the Valley-like Terrain*

With respect to the natural configuration of the Area, the valley-like terrain can be exemplified through the imposition of responsive BH bands. Although the preference is to preserve the hill ridges and knolls, where existing developments are involved, there may be opportunities to configure the future redevelopment into a more sympathetic stepped profile across the contours. Not only would this allow the public to appreciate the natural profile of the Area, it would also inject a degree of visual interest to the eventual redevelopment.

(d) *Formation of High-rise Clusters*

In recognition of the tall buildings around the MTR Kwai Fong and Kwai Hing Stations, it is opportune to allow the two areas to develop as high-rise clusters, maximising the vicinity's convenience to public transport options. Not only would the clusters help define the cores of the wider cityscape, it also allows for the creation of better urban environments through setbacks and dedication of land for public usage. This is especially important as on-street movements and activities are expected to be at their highest at such locations. Depending on the context, the contrasting punctuation of the high-rise clusters may be relaxed towards certain fringes where a more gradual height progression may be considered as more desirable to the wider cityscape.

(e) *Access towards Visual Relief*

Due to the limited quantities of visual relief in the urban core, effort should be made to increase visual access towards key visual elements in the outer parts of the Area. Existing views should be maintained and strengthened through the imposition of BH restrictions. Appropriate controls should be imposed to safeguard the secondary function of GIC facilities as low-rise visual relief in the urban core.

(f) *Stringent Control for Visually Sensitive Areas*

The visual assessment has identified two visually sensitive areas (VSAs) in the Area, *viz.* Wah King Hill Road and Lai Fung Street/Lai Chi Ling Road. Though

both areas have been developed for residential use, nonetheless, stringent measures should be made to minimise adverse visual impact caused by any addition, alterations and/or modifications to the existing buildings on site. The design of eventual redevelopments at the said VSAs should also be sympathetic to its context.

6. Proposed Building Height Restrictions

- 6.1 As a summation of the outcomes from the appraisals and concept, a broad framework for the BH profile and restrictions covering the Area can be formulated. The proposed BH restrictions for “Commercial” (“C”), Comprehensive Development Area (“CDA”), “Residential (Group A)” (“R(A)”), “R(B)” (except for “R(B)1”), “Residential (Group E)” (“R(E)”), “I” and “OU(B)” are shown on **Plan 8B of the Paper**. The proposed BH restrictions for “G/IC” and “OU” zones are shown on **Plan 8C of the Paper**. Existing BH restrictions imposed on “R(B)1” and “Village Type Development” (“V”) zones in the Notes of the OZP are considered compatible with the local setting and thus are proposed to be retained. The existing and committed developments exceeding the BH restrictions are shown on **Plan 8D of the Paper**. Details of the proposed BH restrictions for the above development zones are discussed in section 4.8 of the Paper.

7. Visual Assessment of the Building Height Restrictions

Scope of Assessment

- 7.1 This assessment encompasses the built-up areas and evaluates the visual effects of the proposed BH restrictions from identified vantage points (VPs) as detailed in paragraph 7.2 below. For the purpose of visual assessment, sites with development/redevelopment potential are identified in **paragraph 4.2.7 of the Paper**. The potential development/redevelopment sites are assumed to be developed/ redeveloped to the maximum BHs and committed developments⁽⁴⁾ in the area are also included to depict a more comprehensive, possible built form of the Area.

Selection of Local Vantage Points

- 7.2 The following five VPs taking into consideration the available view, accessibility and popularity to the public are selected for assessing the visual impact of the proposed BH restrictions:
- Tsing Yi waterfront promenade (VP1): a popular public promenade which provides a panoramic view of Kwai Chung stretching from the Tsuen Wan Chinese Permanent Cemetery on the north to container terminals on the south. The ridgeline of the Golden Hill is also visible.
 - Footbridge adjacent to Kwai Chung Sports Ground (VP2): it is located near the heart of Kwai Fong next to Kwai Chung Sports Ground and Kwai Tsing Theatre, where the knoll of Kwai Shing area is highly visible. The footbridge is also frequently used by locals commuting between the urban core and the industrial clusters on its west.

⁽⁴⁾ Committed developments include sites with planning permission or building plan approval.

- Footbridge across Kwai Chung Road (VP3): a major footbridge linkage between MTR Kwai Hing Station and the industrial/business area across Kwai Chung Road. It illustrates the vista of the industrial/business area along Kwai Chung Road.
- Kwai Shing Swimming Pool (VP4): the view shows the Kwai Fuk Road vista with an unobstructed view to the foothill of Golden Hill.
- Shek Yam Lei Muk Road Park (VP5): a popular park at the Eastern sub-area where the Wo Yi Hop Road industrial/business area is visible.

Appraisal of Visual Changes (Photomontages at Plans 8E to 8J of the Paper)

Tsing Yi waterfront promenade

- 7.3 **Plan 8E of the Paper** shows the panoramic view and photomontage of the Area from the Tsing Yi waterfront promenade. In the foreground, the low-rise and loosely distributed developments along the waterfront allow an unobstructed view to the high-rise developments in the inland behind the Tsuen Wan Chinese Permanent Cemetery and proposed Kwai Chung Park, such as the Ever Gain Plaza and Metroplaza, as well as public rental housing estates including Lai Yiu Estate and Lai King Estate. The foothill of the Golden Hill can also be clearly seen from this view point. As shown on the plan, the ridgeline of the Golden Hill is already obscured by a few existing developments such as the Wonderland Villas, Highland Park, etc. Without a proper BH control, it is likely that a proliferation of out-of-context developments would further degrade the visual quality of this view. The proposed BH restrictions will provide proper guidance to the height profile of the built development, thus prevent excessively tall buildings from intruding the ridgeline of Golden Hill upon redevelopment of Lai Yiu Estate, Lai King Estate and industrial buildings near Ever Gain Plaza, as well as to ensure smooth visual transition from Highland Park to the waterfront upon redevelopment of Cho Yiu Chuen while emphasising the natural form of the sloping land upon which the estate stands. The existing tall developments, including Highland Park, Metroplaza and Ever Gain Plaza will generally be restricted to their existing heights to avoid further obstruction to the ridgeline. A more stringent stepped BH restriction is imposed on Wonderland Villas with the intention of containing its visual impact upon redevelopment. Also, the low-rise vertical profile of the waterfront area is maintained under the BH restrictions, ensuring the view to the Tsuen Wan Chinese Permanent Cemetery/ proposed Kwai Chung Park in the foreground and green mountain backdrop in the background is kept.

Footbridge adjacent to Kwai Chung Sports Ground

- 7.4 As shown on **Plan 8F of the Paper**, the knoll at Kwai Shing is mainly occupied by public and private housing developments, with a belt of low-rise GIC facilities and open spaces along its foot. Hibiscus Park, Horizon Place, Kwai Shing East Estate, and the newly completed Kwai Luen Estate have been developed into rather monotonous high-rise developments over 30 storeys without having much regard to the natural terrain of the knoll. The older Kwai Shing West Estate occupying the western part of the knoll is comparatively lower in height. As illustrated in the photomontage, upon redevelopment Kwai Shing West Estate, the proposed stepped BH bands of 120mPD, 160mPD and 190mPD which replicate the hilly terrain of the knoll will allow height variation and more visual interest. It is intended that such stepped height profile will enhance the uniqueness

of the knoll and create a more recognisable identity for this locality in the long-term. In addition, the low-rise nature of the GIC strip along the foot of the knoll will be maintained by imposing height limits to the current height levels, thereby ensuring an unobstructed view to the knoll.

Footbridge across Kwai Chung Road

- 7.5 The vista along Kwai Chung Road viewing south is shown on **Plan 8G of the Paper**. The redevelopment of the industrial buildings on the east of the road up to the proposed BH restriction of 105mPD will be visually compatible with the relatively wide Kwai Chung Road (about 40m) and the urban core setting, yielding an acceptable height-to-width ratio⁽⁵⁾ of about 2.5:1. Also, such height band will help reinforce the high-rise node at the Kowloon Commerce Centre with a BH restriction of 150mPD. On the west of Kwai Chung Road, the proposed redevelopment of the ex-Kwai Chung Police Married Quarters with a BH restriction of 90mPD is also visually congruent with the adjacent Kwai Fong Estate along this vista.

Kwai Shing Swimming Pool

- 7.6 **Plan 8H of the Paper** illustrates the view to Lai Yiu Estate at the foothill of the Golden Hill from Kwai Shing Swimming Pool. The estate is located at a visually sensitive location which is vulnerable to out-of-context development. As viewed from this VP, the two height bands assigned for Lai Yiu Estate at 160mPD and 190mPD have sought a proper balance of the redevelopment need of the estate and the avoidance of excessively tall buildings, allowing a compatible building mass in this area. Furthermore, a BH restriction of 90mPD for the redevelopment of the Kwai Fong Multi-storey Carpark will not result in out-of-context building that would obstruct the view to the mountain in the background.

Shek Yam Lei Muk Road Park

- 7.7 The view to the business/industrial buildings along Wo Yi Hop Road from Shek Yam Lei Muk Road Park which is a popular park in the Eastern Sub-area is shown on **Plan 8J of the Paper**. While most of these existing buildings are medium-rise between 10 to 25 storeys, excessively tall buildings similar to Asia Trade Centre (currently at 36 storeys/ 181mPD) may proliferate upon redevelopment without BH control, resulting in unfavourable visual and air ventilation condition. The proposed BH restriction of 130mPD for this building cluster will help maintain a visually congruous mass with the surroundings.

Overall visual changes

A Coherent Height Profile

- 7.8 Many of the residential and industrial buildings in the Area are over 30 years of age and are ripe for redevelopment. In fact, it is evident that many redeveloped buildings are excessively tall in the locality (e.g. the Kowloon Commerce Centre of 150mPD while majority of buildings in the neighbourhood are below 90mPD). If no BH restriction is imposed, it is expected that more development of inappropriate scale and height will proliferate. The imposition of BH restriction would guide future development in a more

⁽⁵⁾ Height-to-width ratio refers to the proportional difference between the width of a space and its enclosing buildings.

coherent manner. The townscape will be compatible and in harmony with the visual character within the local and wider context.

A Distinct and Recognisable Town Centre

- 7.9 Under the proposed BH concept, the two existing high-rise nodes in the urban core, i.e. Metroplaza near MTR Kwai Fong Station and Kowloon Commerce Centre near MTR Kwai Hing Station, are respected by imposing a BH restriction of 170mPD and 150mPD respectively. This helps reinforce a contrast with the lower BH restrictions of 90mPD to 120mPD of the surrounding developments in the valley floor. This will not only create visual interest in the relatively flat valley urban core, but also project a positive recognisable image for Kwai Chung town centre.

Compatible Stepped Building Height Profile

- 7.10 The proposed BH bands progressively stepped-up from the valley floor toward the foothill of the Golden Hill on the east and the knoll at Kwai Shing on the west has respected the existing valley-like configuration of the Area. Such BH restrictions are also sympathetic and compatible with the existing building morphology, surrounding topography and landscape setting. The BH profile will ensure that the discernable topographical character of the Area will not be intruded by proliferation of out-of-context buildings in the long-term. In addition, the BH restrictions at existing height imposed on low- to medium-rise developments at the waterfront will commensurate with the stepped height profile in the hinterland.

Preserve Views to Mountain Backdrop

- 7.11 The proposed BH restrictions have due respect to the green mountain backdrop. Height restrictions of the developments at higher elevations or approaching the ridgeline are carefully considered in order to keep appropriate clearance from the ridgeline when viewed from major VPs. Moreover, the BH restrictions of the protruding residential developments at the exposed terrain along the foothill of the Golden Hill, including DSQ and Highland Park are generally retained at their existing heights to prevent further obstruction to the ridgeline. Furthermore, a more stringent stepped BH restriction is imposed on Wonderland Villas with the intention of containing its visual impact upon redevelopment.

Effect on Public Viewers

- 7.12 The impacts of the proposed BH restriction on the public viewers are discussed in paragraphs 7.3 to 7.8 above and shown in **Plan 8E to 8J of the Paper**.

Appraisal of Urban Design Changes

Building Height Profile

- 7.13 The proposed stepped BH profile with progressively raising height bands from the valley floor toward the foothill of Golden Hill to the east and knoll at Kwai Shing to the west will enhance the valley-like topography of the Area. In the meanwhile, the two existing landmark buildings, namely Metroplaza and Kowloon Commerce Centre, are maintained under the BH profile to serve as visual anchors of the Area.

Maintain Low-rises at Waterfront

- 7.14 The proposed BH restrictions reflecting the existing BH of the GIC and OU developments will preserve the existing low- to medium-rise vertical profile and openness of the waterfront. This is in line with the urban design principle to avoid excessively tall and out-of-context buildings on the waterfront.

Provide Visual and Spatial Relief at “GB”, “O”, “GIC” and “OU” sites

- 7.15 The open space, green belt, low to medium-rise GIC and OU developments scattered throughout the Area are retained to function as visual and spatial relief and breathing spaces in the Area. Integration of the GIC and OU developments with the greenery in the “O” and “GB” zones will also enhance visual permeability. In particular, the two important low-rise strips between Hing Shing Road/Kwai Shing Circuit and Tai Wo Hau Road/Kwai Shing Circuit will be preserved.

Preserve View/Wind Corridors

- 7.16 The proposed BH restrictions will be commensurate with the scale of the street and preserve the existing view/wind corridors along main roads such as Kwai Chung Road, Tsuen Wan Road and Kwai Fuk Road. Also, maintaining the existing vertical height profile of the container terminals can help preserve the existing air corridor for sea breeze, and the existing visual corridor of Rambler Channel and its long-distance views of the Stonecutter’s Bridge, West Kowloon and Hong Kong Island. According to the findings of the AVA, non-building areas and building gaps are imposed to enhance the penetration of annual northeasterly to southeasterly prevailing wind and the summer sea breezes from the south/southwest to the inland, as well as to improve local air ventilation conditions.

Respect Heritage Buildings

- 7.17 There are several graded/proposed graded historic buildings in Kau Wa Keng as discussed in paragraph 2.7 above. Besides the existing mechanism of the Antiquities and Monuments Office (AMO) of the Leisure and Cultural Services Department⁽⁶⁾ in preserving heritage buildings, the “CDA” zoning can also offer due protection in that any development within the zone should seek planning permission from the Board with the submission of a Master Layout Plan (including landscape and urban design proposals) to demonstrate that the proposed development would be developed in a comprehensive manner without causing adverse impacts on the surroundings, including the built heritages.

⁽⁶⁾ Upon alert by relevant departments of any proposed development that will affect a historic building, the Commissioner for Heritage and the AMO will follow up with the private owner concerned to explore any preservation-cum-development option or any form of economic incentives that are commensurate with the grading.

8. Conclusion

- 8.1 Based on the visual assessment, it is considered that the proposed BH profile is in line with the urban design concept and is sympathetic and compatible with the topography and the local character in the Area. Due respect has been given to preserving the waterfront setting and the scenic backdrop of the Country Parks on the north and east. Low-rise GIC and OU facilities, green belts and open spaces are maintained to act as spatial and visual relief, as well as breathing spaces in the Area. The overall BH profile under the proposed BH restrictions is generally in harmony with existing environment and no adverse visual impact would be envisaged.

Attachments

Plan UD-1	Visual Attributes of the Kwai Chung Area
Photo 1	Residential Developments at Ha Kwai Chung Sub-area and Container Terminals at Waterfront Sub-area
Photo 2	Industrial area at Waterfront Sub-area
Photo 3	Visual Envelope of Tsuen Wan/Kwai Chung New Town
Photo 4	Visual Corridor along Rambler Channel (the Strait between Kwai Chung and Tsine Yi)
Photo 5a	Disciplined Services Quarters and Wah Yuen Chuen at the Visually Sensitive Area
Photo 5b	Long-distance View of Wonderland Villas and Highland Park
Photo 6	Low-rise GIC Strip at Hing Shing Road/Kwai Shing Circuit
Plan 3A of Annex D	Sub-areas of Kwai Chung Planning Scheme Area
Plan 3A-1 of Annex D	Sub-area 1 (Central Area)
Plan 3A-2 of Annex D	Sub-area 2 (Eastern Area)
Plan 3A-3 of Annex D	Sub-area 3 (Kwai Shing Area)
Plan 3A-4 of Annex D	Sub-area 4 (Ha Kwai Chung Area)
Plan 3A-5 of Annex D	Sub-area 5 (Waterfront Area)
Plan 3A-6 of Annex D	Sub-area 6 (Golden Hill Foothill Area)
Plan 3C of Annex D	Overview of Kwai Chung from Wonderland Villas and from the south
Plan 3D of Annex D	Overview of Kwai Chung from the northwest and east
Plan 3E of Annex D	Overview of Kwai Chung from the south and west
Plan 4A of Annex D	Existing Building Height for Kwai Chung Area (mPD)
Plan 5 of Annex D	Spatial Attributes of Kwai Chung Area
Plan 8A of Annex D	Concept Plan for the Proposed Building Height Profile of Kwai Chung Area
Plan 8B of Annex D	Existing and Proposed Building Height Restrictions under Kwai Chung OZP
Plan 8C of Annex D	Proposed Building Height Restrictions under Kwai Chung OZP (“G/IC” and “OU” Zones)
Plan 8D of Annex D	Existing and Committed Developments with Building Heights in Excess of Proposed Building Height Restrictions
Plan 8E of Annex D	Photomontage viewed from Tsing Yi Waterfront Promenade
Plan 8F of Annex D	Photomontage viewed from Footbridge adjacent to Kwai Chung Sports Ground
Plan 8G of Annex D	Photomontage viewed from Footbridge across Kwai Chung Road
Plan 8H of Annex D	Photomontage viewed from Kwai Shing Swimming Pool
Plan 8J of Annex D	Photomontage viewed from Shek Yam Lei Muk Road Park



Photo 1: Residential Developments at Ha Kwai Chung Sub-area and Container Terminals at Waterfront Sub-area



Photo 2: Industrial area at Waterfront Sub-area



Photo 3: Visual Envelope of Tsuen Wan/Kwai Chung New Tow



Photo 4: Visual corridor along Rambler Channel (the strait between Kwai Chung and Tsing Yi)



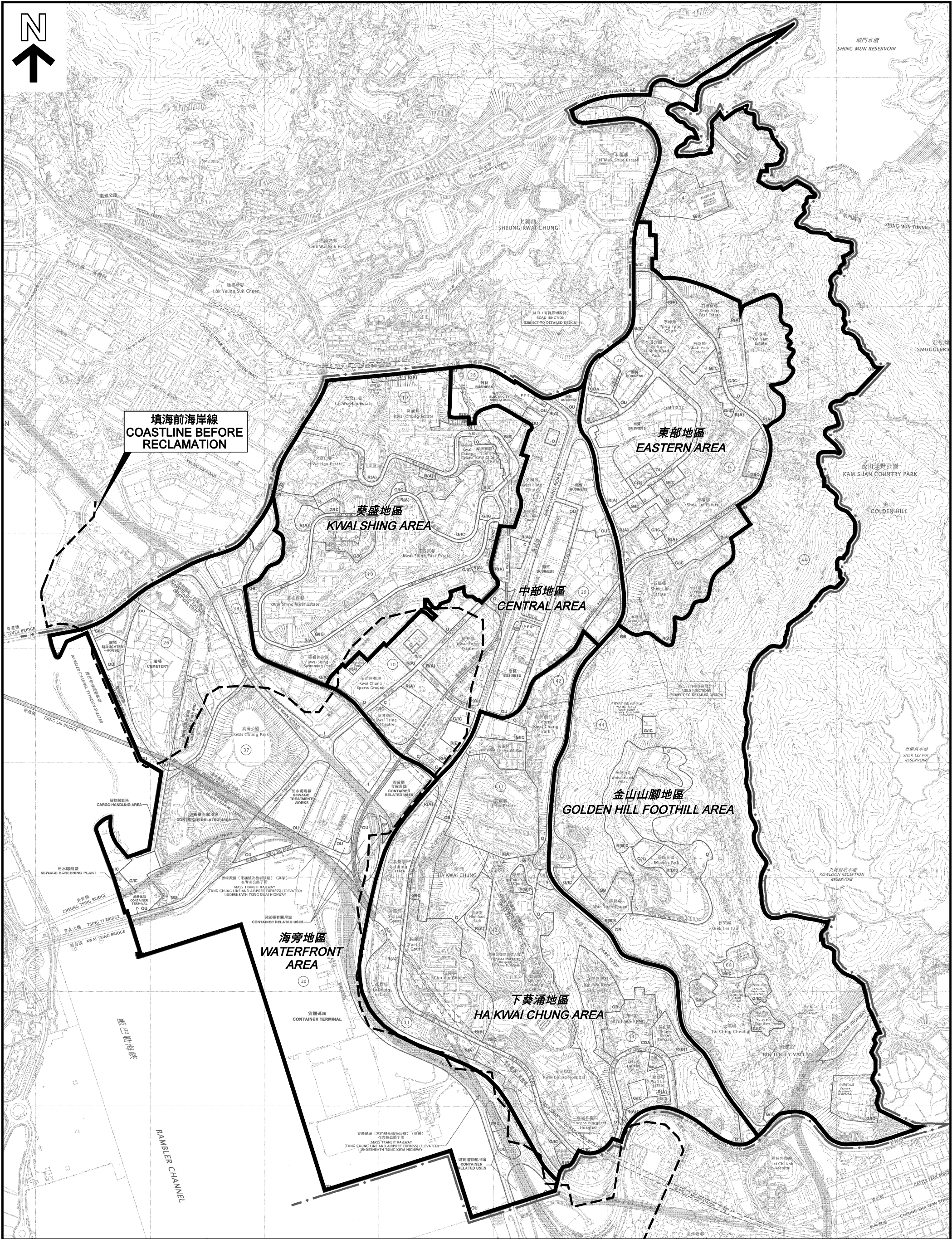
Photo 5a: Disciplined Services Quarters (left) and Wah Yuen Chuen (right) at the Visually Sensitive Area



Photo 5b: Long-distance View of Wonderland Villas (華景山莊) and Highland Park (浩景臺).

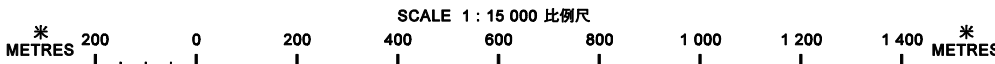


Photo 6: Low-rise GIC Strip at Hing Shing Road/Kwai Shing Circuit



本摘要圖於2011年6月15日擬備，所根據的資料為2011年5月31日核准的分區計劃大綱圖編號S/KC/25
EXTRACT PLAN PREPARED ON 15.6.2011
BASED ON OUTLINE ZONING PLAN No. S/KC/25 APPROVED ON 31.5.2011

葵涌規劃區的支區
SUB-AREAS OF KWAI CHUNG PLANNING SCHEME AREA



規劃署
PLANNING
DEPARTMENT



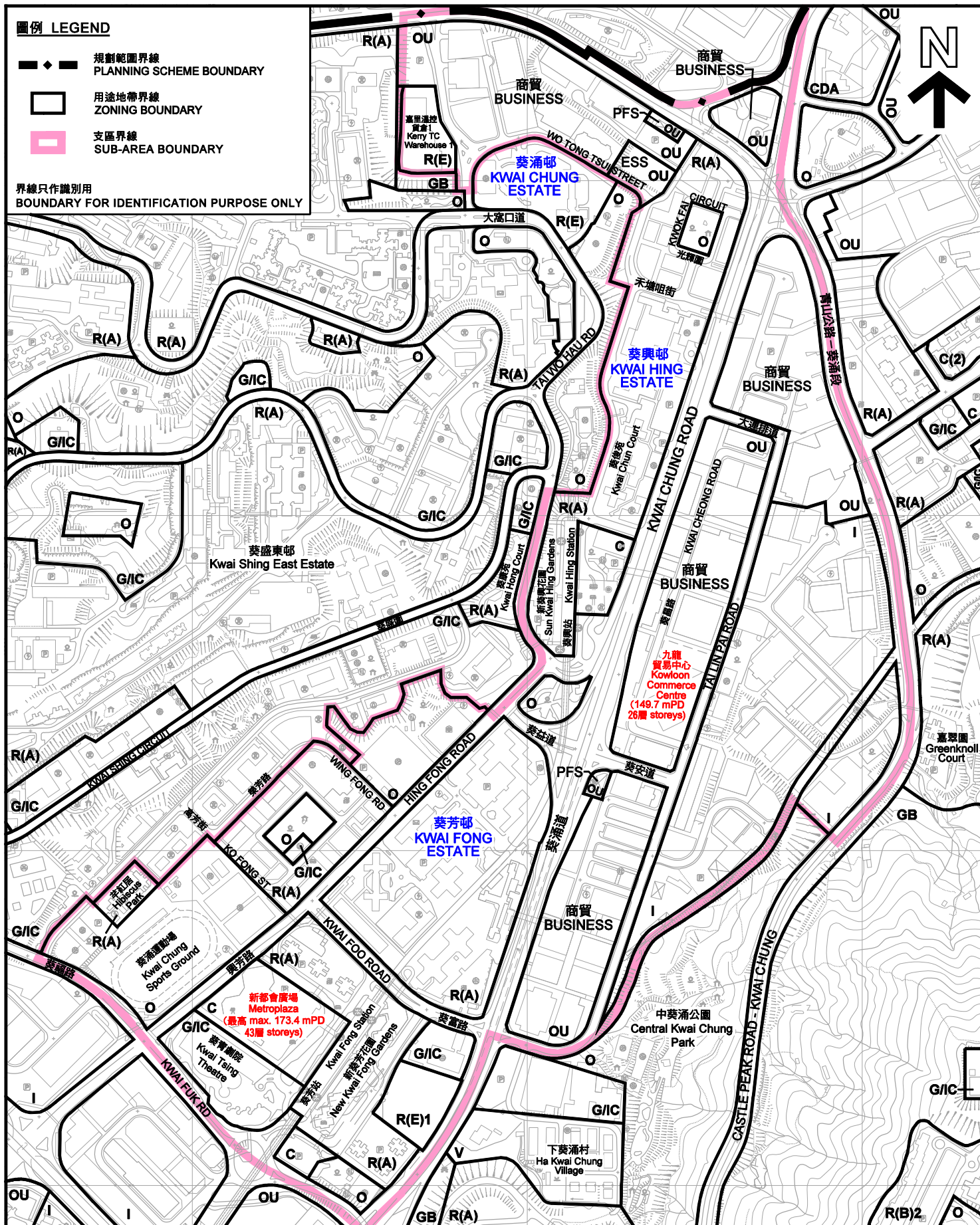
參考編號
REFERENCE No.
M/KC/11/1

圖 PLAN
3A

圖例 LEGEND

- 規劃範圍界線
PLANNING SCHEME BOUNDARY
- 用途地帶界線
ZONING BOUNDARY
- 支區界線
SUB-AREA BOUNDARY

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY



本摘要圖於2012年2月21日擬備，所根據的資料為測量圖編號7-SW-C 及 11-NW-A

EXTRACT PLAN PREPARED ON 21.2.2012
BASED ON SURVEY SHEETS No.
7-SW-C AND 11-NW-A

支區1(中部地區) SUB-AREA 1 (CENTRAL AREA)

SCALE 1 : 7 500 比例尺
米 100 0 100 200 300 米
METRES

規劃署
PLANNING
DEPARTMENT



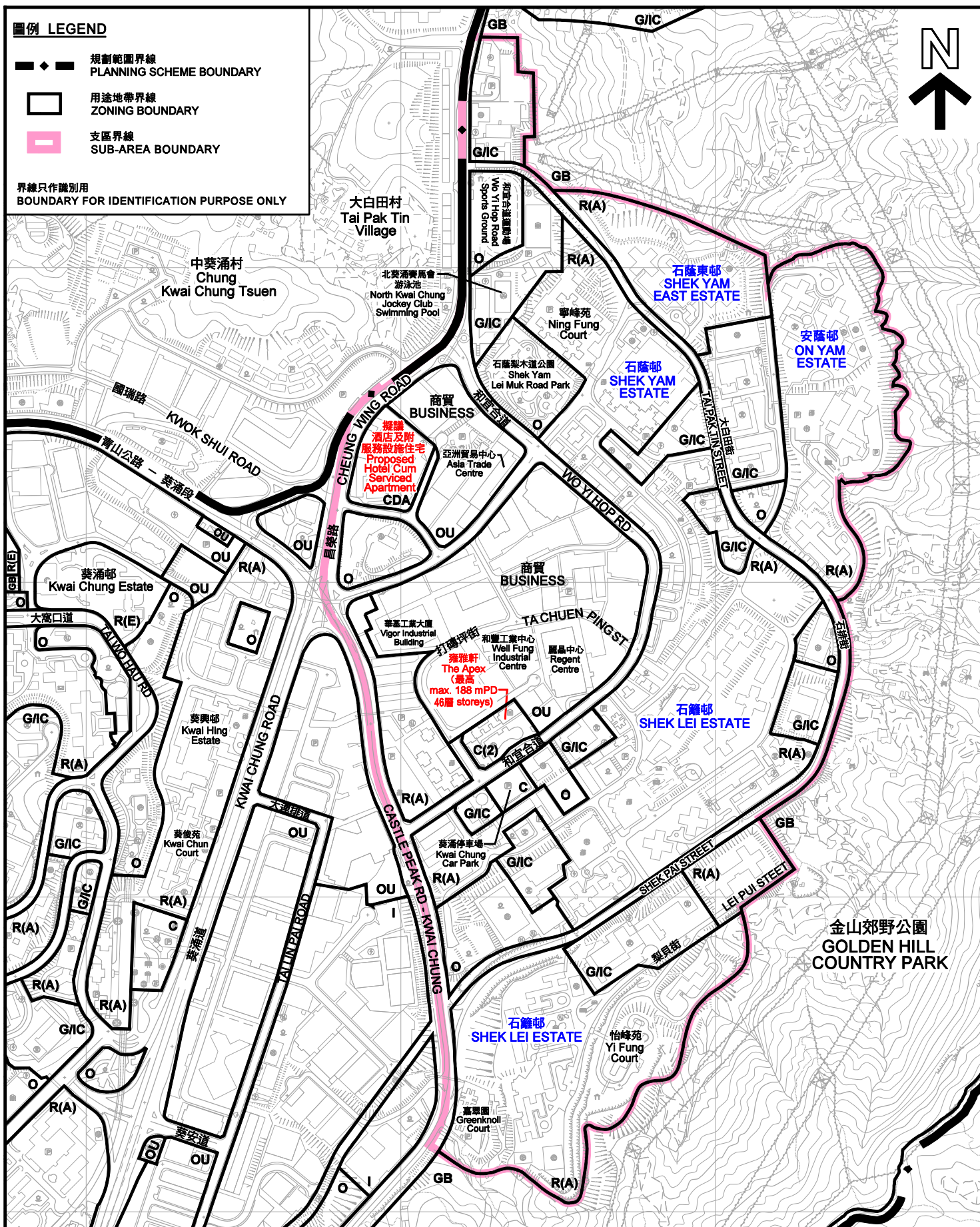
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M/KC/11/1

圖 PLAN
3A-1

圖例 LEGEND

- 規劃範圍界線
PLANNING SCHEME BOUNDARY
- 用途地帶界線
ZONING BOUNDARY
- 支區界線
SUB-AREA BOUNDARY

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY



本摘要圖於2012年2月21日擬備，所根據的資料為測量圖編號7-SW-C
EXTRACT PLAN PREPARED ON 21.2.2012
BASED ON SURVEY SHEET No.
7-SW-C

支區2(東部地區) SUB-AREA 2 (EASTERN AREA)

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METRES METRES

規劃署
PLANNING
DEPARTMENT



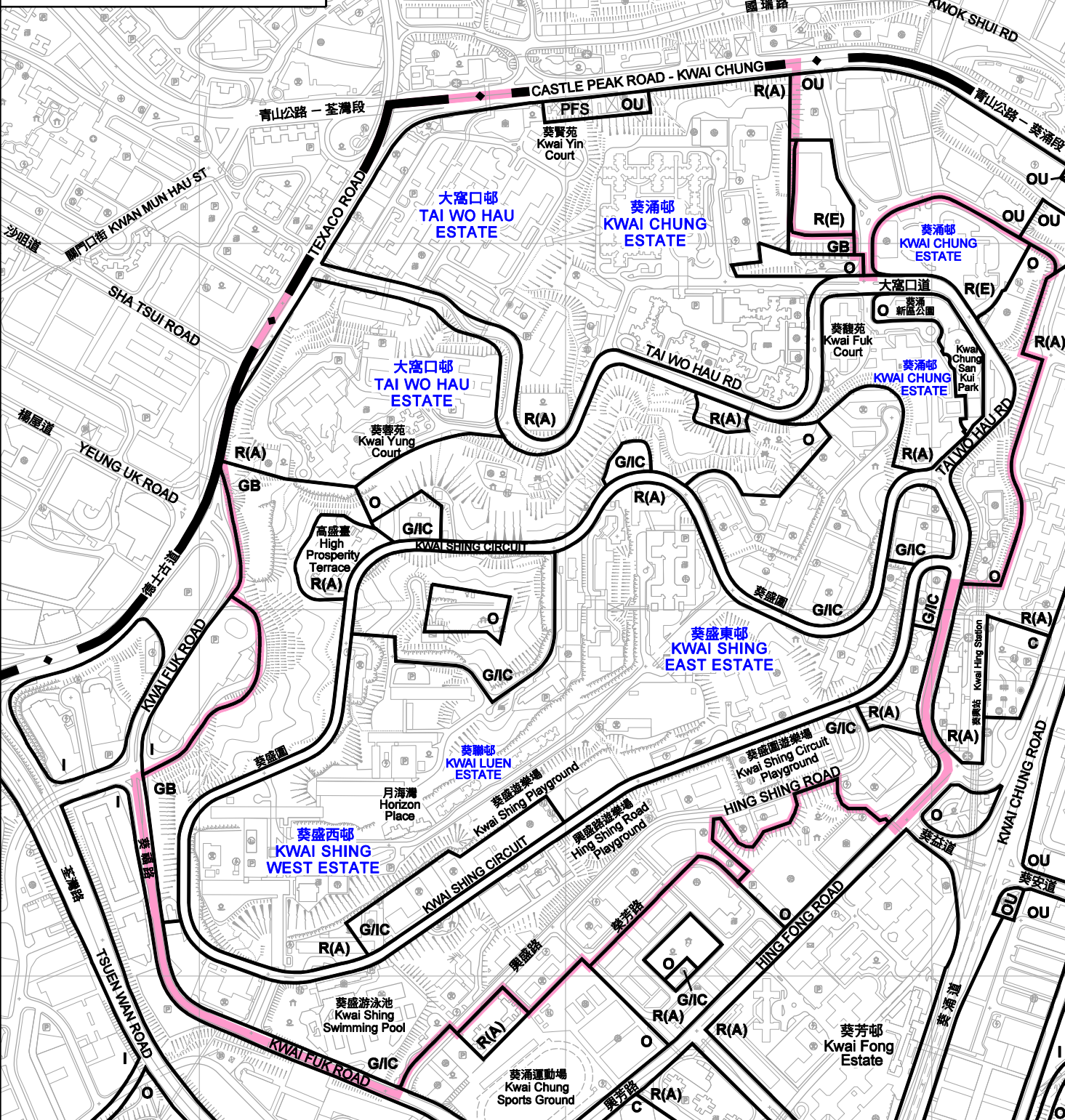
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M/KC/11/1

圖 PLAN
3A-2

圖例 LEGEND

- ◆ 規劃範圍界線
PLANNING SCHEME BOUNDARY
- ◻ 用途地帶界線
ZONING BOUNDARY
- ◻ 支區界線
SUB-AREA BOUNDARY

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY



本摘要圖於2011年12月9日擬備，所根據的資料為測量圖編號7-SW-C

EXTRACT PLAN PREPARED ON 9.12.2011
BASED ON SURVEY SHEET No.
7-SW-C

支區3(葵盛地區) SUB-AREA 3 (KWAI SHING AREA)

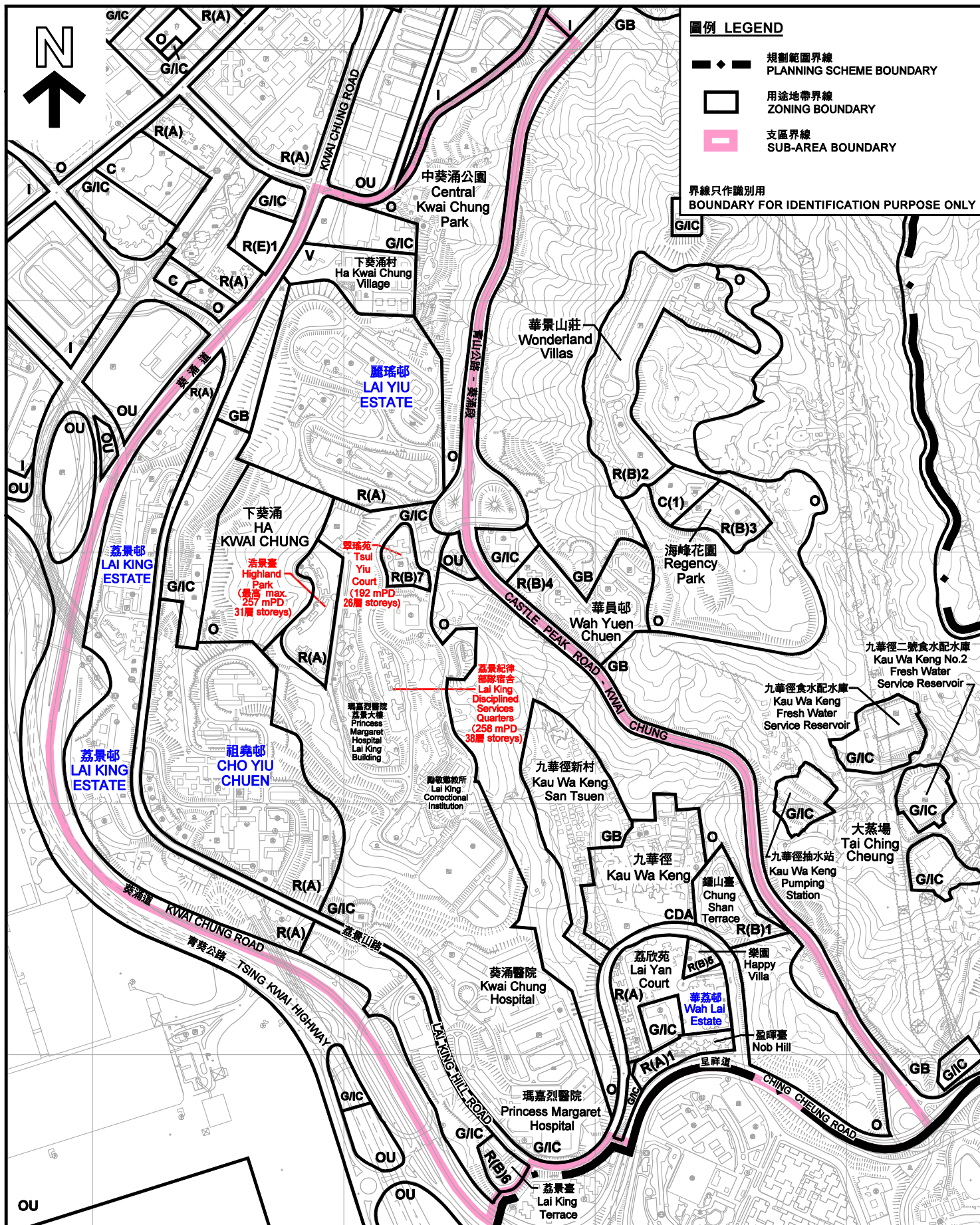
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規劃署
PLANNING
DEPARTMENT



參考編號
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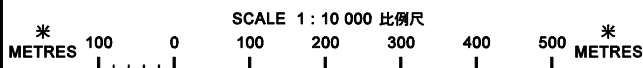
圖 PLAN
3A-3



本摘要圖於2012年2月16日擬備，所根據的資料為
測量圖編號7-SW-C 及 11-NW-A

EXTRACT PLAN PREPARED ON 16.2.2012
BASED ON SURVEY SHEETS No.
7-SW-C AND 11-NW-A

支區4(下葵涌地區)
SUB-AREA 4 (HA KWAI CHUNG AREA)



規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/KC/11/1

圖 PLAN
3A-4

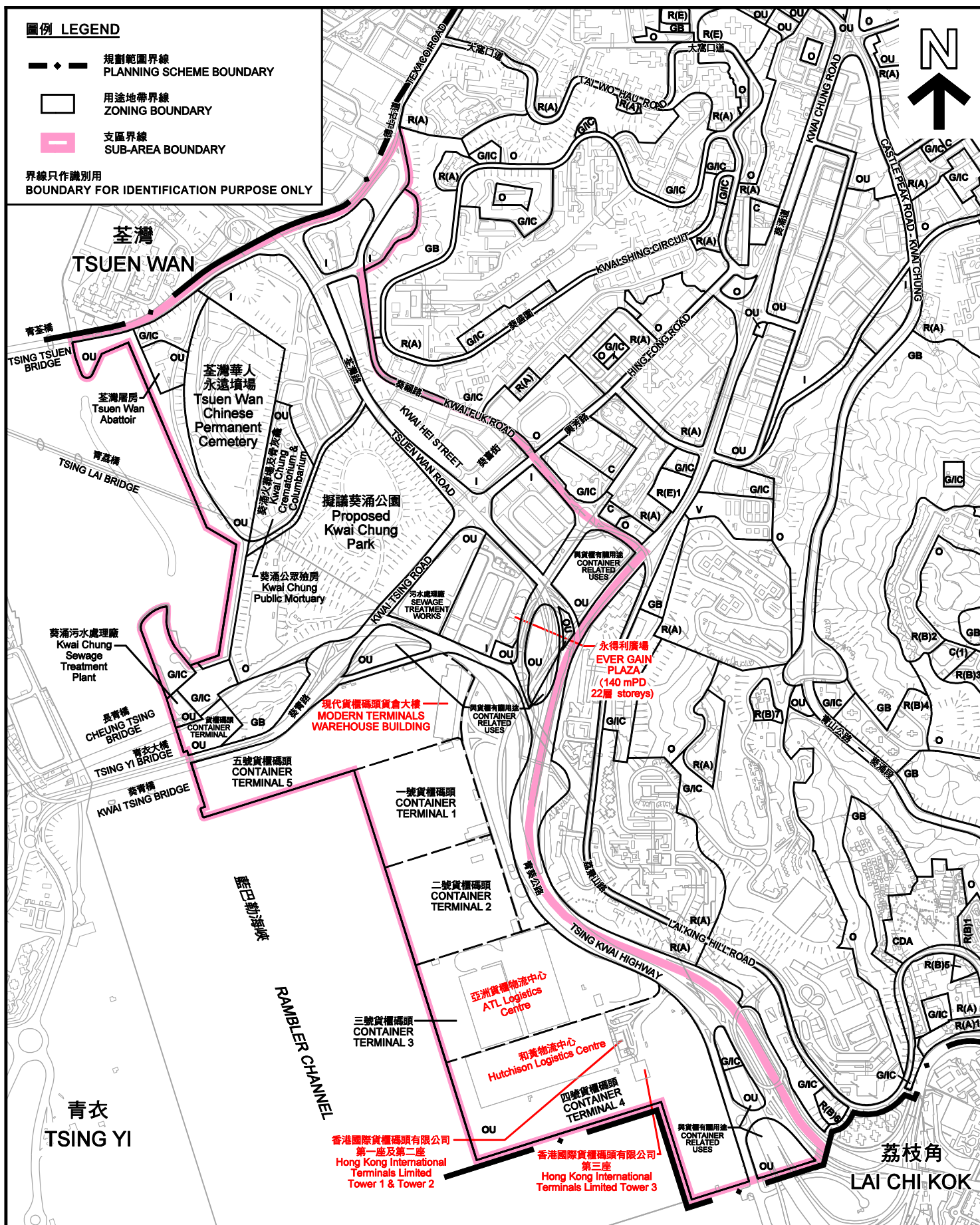
圖例 LEGEND

— ◆ — 規劃範圍界線
PLANNING SCHEME BOUNDARY

□ 用途地帶界線
ZONING BOUNDARY

▬ 支區界線
SUB-AREA BOUNDARY

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY



本摘要圖於2011年12月9日擬備，所根據的資料為地圖組別HM20C圖則編號6/7/10及11

EXTRACT PLAN PREPARED ON 9.12.2011
BASED ON MAP SERIES HM20C SHEETS
No. 6/7/10 AND 11

支區5(海旁地區) SUB-AREA 5 (WATERFRONT AREA)

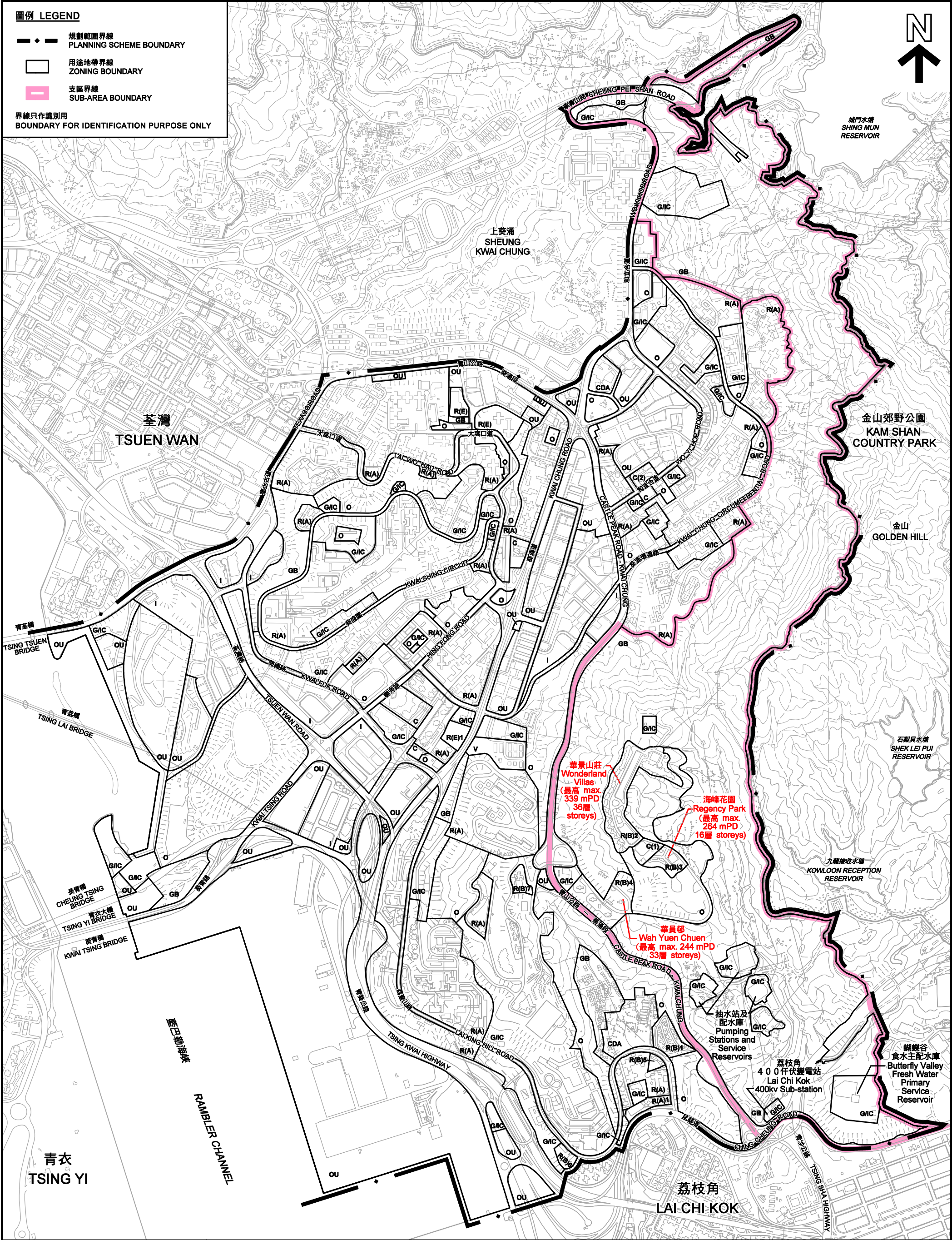
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規劃署
PLANNING
DEPARTMENT



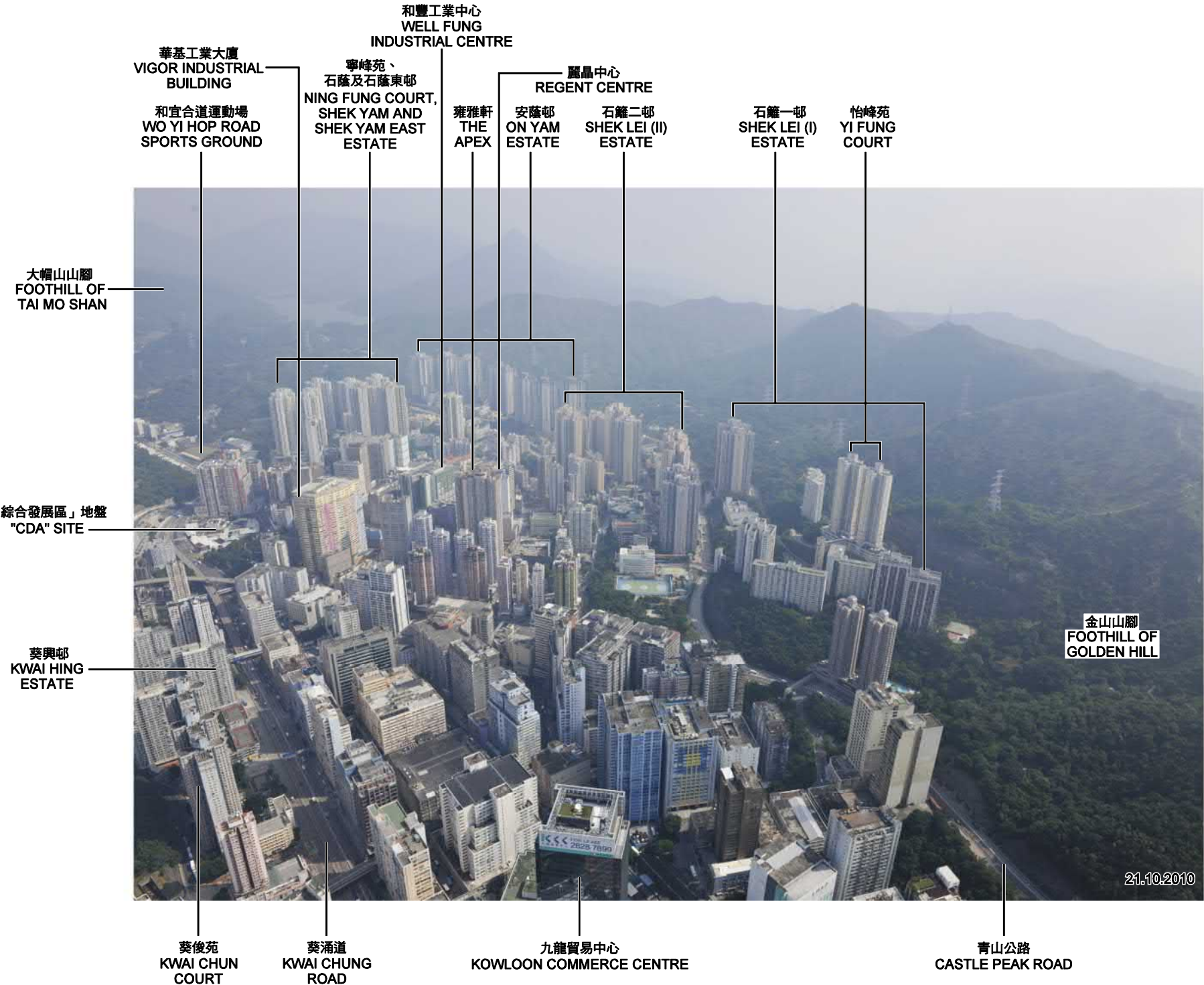
參考編號
REFERENCE No.
M/KC/11/1

圖 PLAN
3A-5





由華景山莊俯視葵涌區
OVERVIEW OF KWAI CHUNG FROM WONDERLAND VILLAS



由南方俯視葵涌區
OVERVIEW OF KWAI CHUNG FROM THE SOUTH

本圖於2012年2月20日擬備，所根據的資料為攝於2010年10月21日及2012年2月2日的實地照片
PLAN PREPARED ON 20.2.2012
BASED ON SITE PHOTOS TAKEN
ON 21.10.2010 AND 2.2.2012

葵涌區俯視圖
OVERVIEW OF KWAI CHUNG AREA

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/KC/11/1

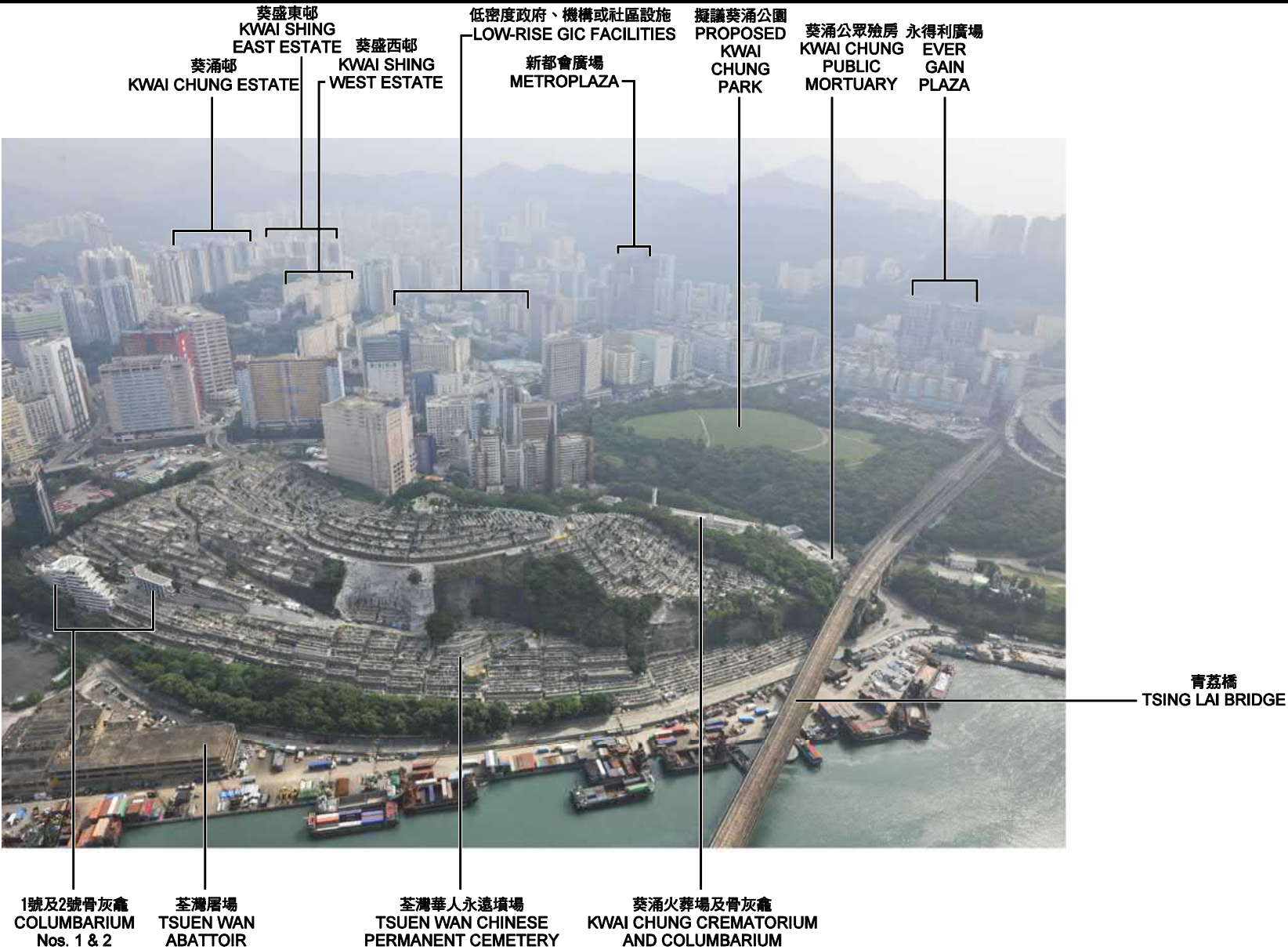
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3C



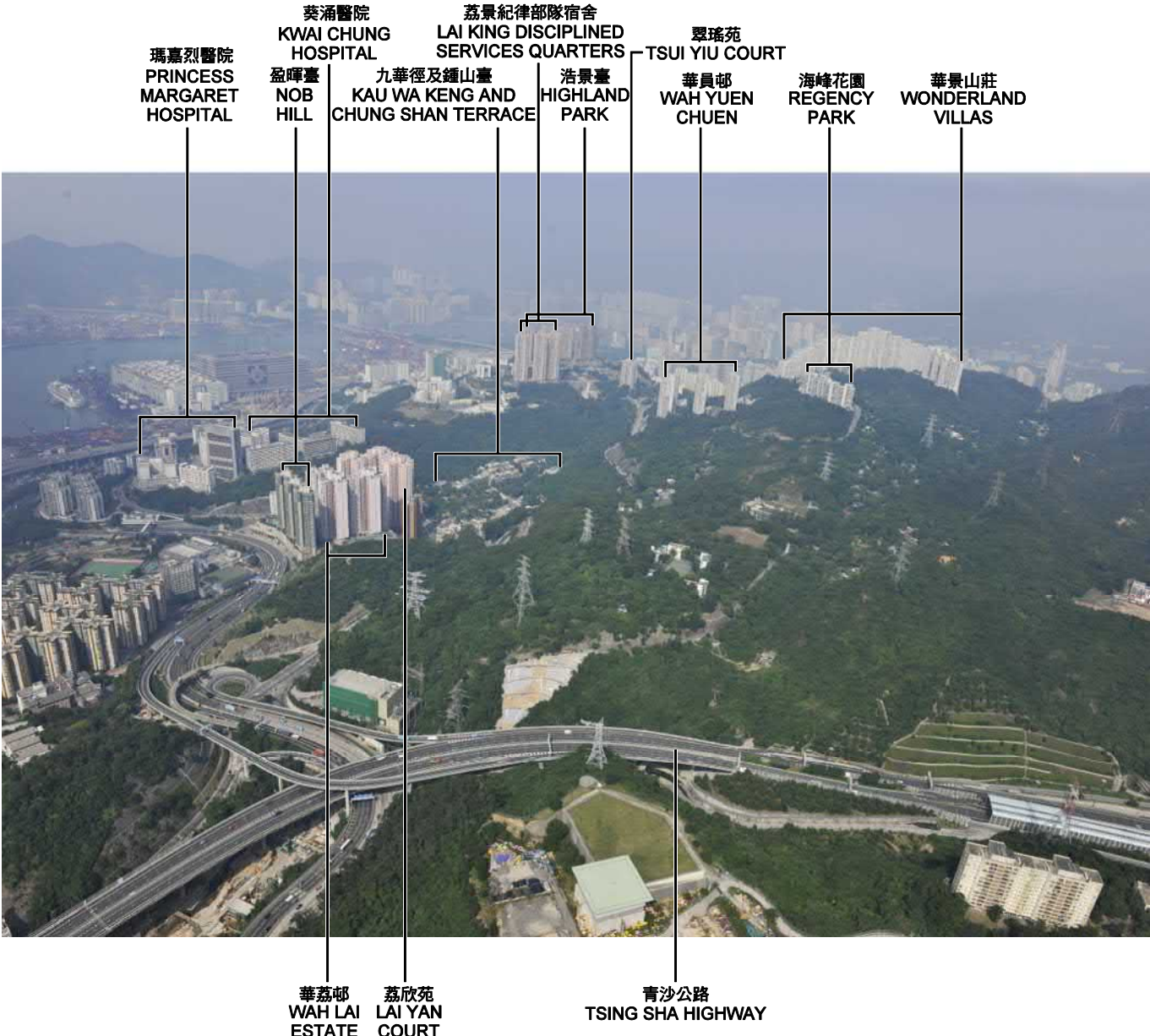
**PLAN PREPARED ON 21.2.2012
BASED ON SITE PHOTOS TAKEN
ON 20.10.2010**

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PLANNING
DEPARTMENT

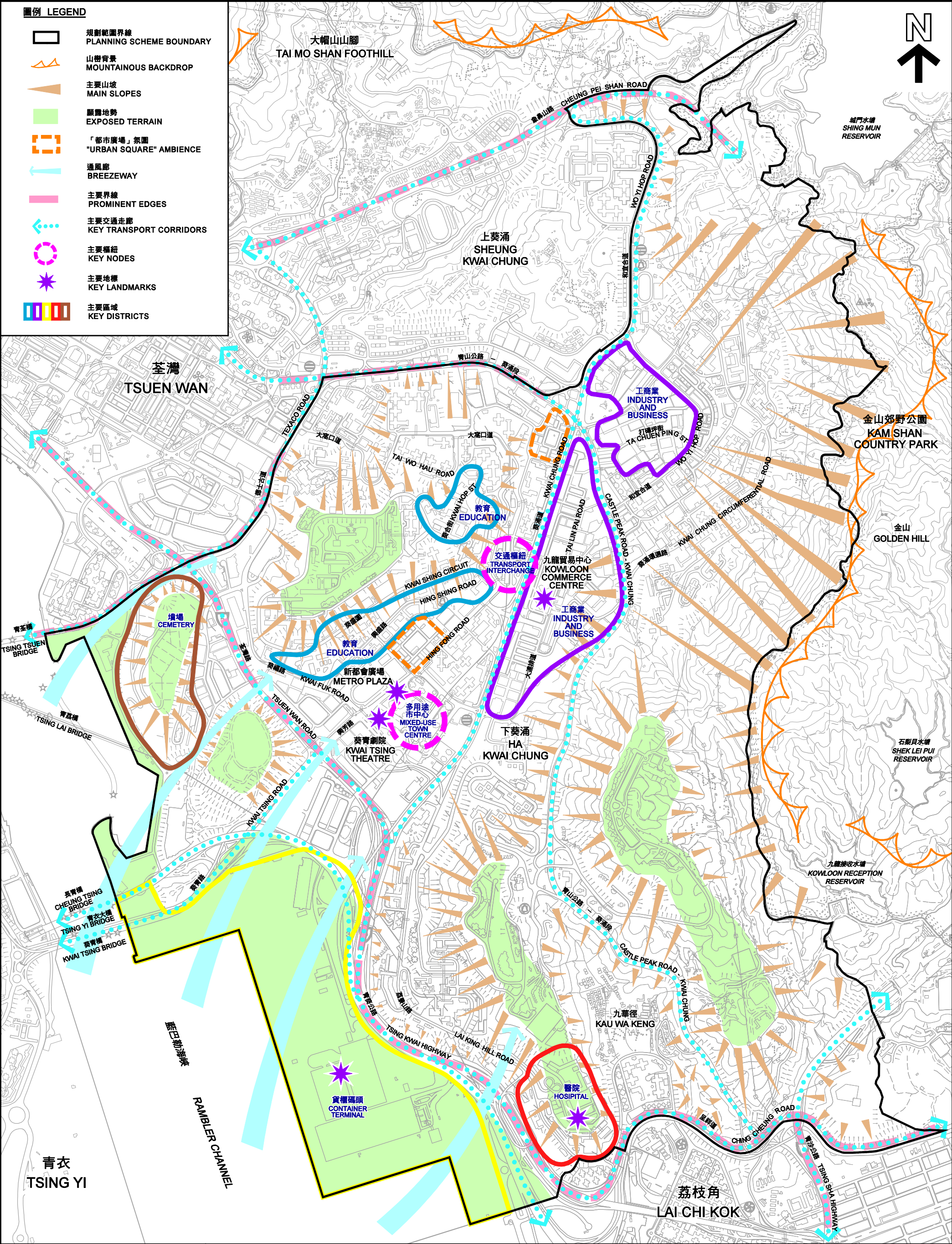




由西方俯視葵涌區
OVERVIEW OF KWAI CHUNG FROM THE WEST



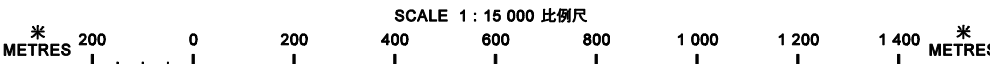
由南方俯視葵涌區
OVERVIEW OF KWAI CHUNG FROM THE SOUTH



本摘要圖於2012年2月16日擬備，所根據的資料為地圖組別HM20C圖則編號6、7、10及11

EXTRACT PLAN PREPARED ON 16.2.2012
BASED ON MAP SERIES HM20C SHEETS
No. 6, 7, 10 AND 11

葵涌區的空間結構
SPATIAL ATTRIBUTES OF KWAI CHUNG AREA

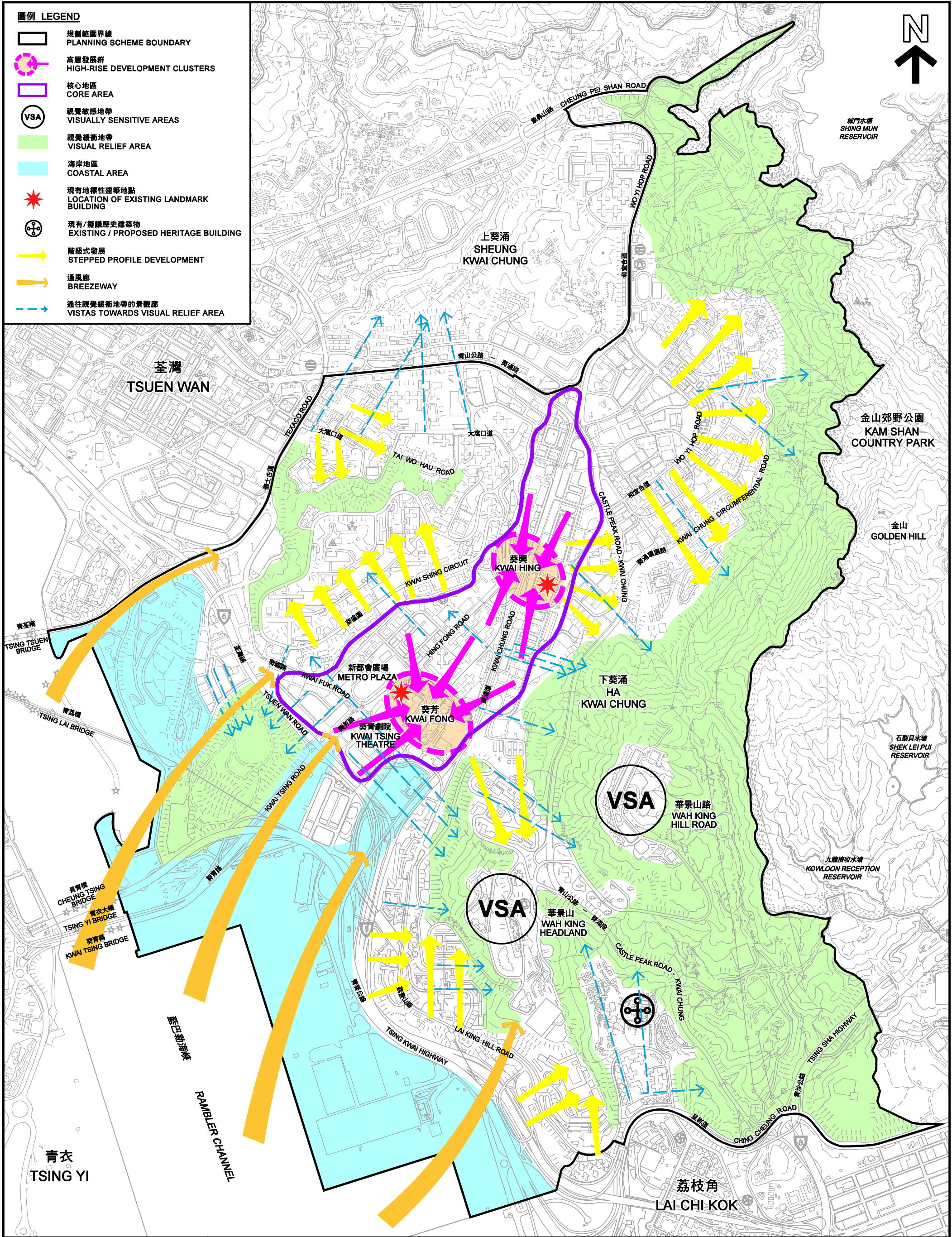


規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/KC/11/1

圖 PLAN
5



本摘要圖於2012年2月10日擬備，所根據的資料
為地圖組別HM20C圖則編號6、7、10及11

EXTRACT PLAN PREPARED ON 10.2.2012
BASED ON MAP SERIES HM20C SHEETS
No. 6, 7, 10 AND 11

葵涌區擬議建築物高度概況構思圖
CONCEPT PLAN FOR
THE PROPOSED BUILDING HEIGHT PROFILE OF KWAI CHUNG AREA

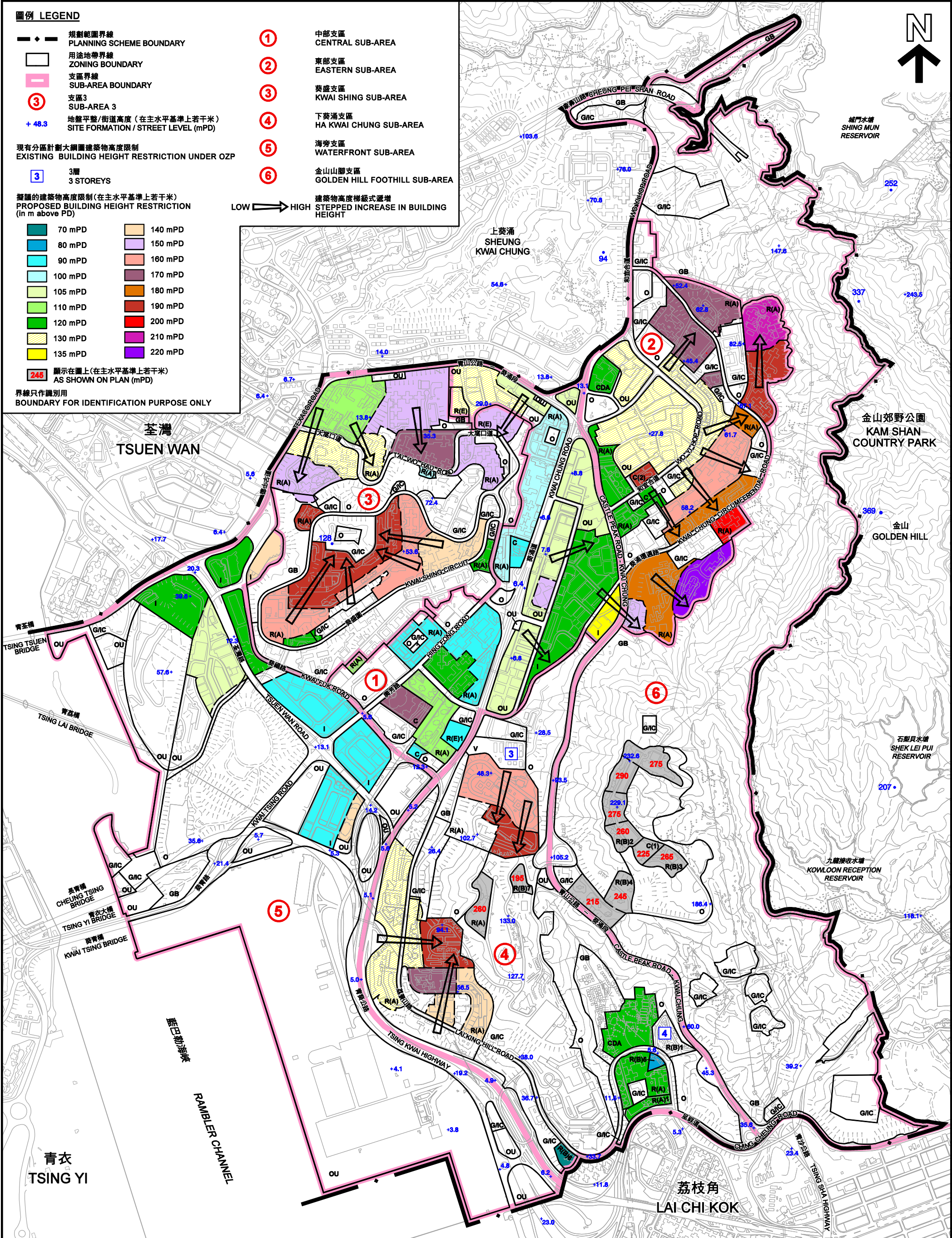
SCALE 1 : 15 000 比例尺
米 200 0 200 400 600 800 1 000 1 200 1 400 米
METRES

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/KC/11/1

圖 PLAN
8A



圖例 LEGEND

—◆— 規劃範圍界線
PLANNING SCHEME BOUNDARY

□ 用途地帶界線
ZONING BOUNDARY

▭ 支區界線
SUB-AREA BOUNDARY

③ 支區3
SUB-AREA 3

+17.8
地盤平整/街道高度 (在主水平基準上若干米)
SITE FORMATION / STREET LEVEL (mPD)

地點參考編號
SITE REFERENCE NUMBER

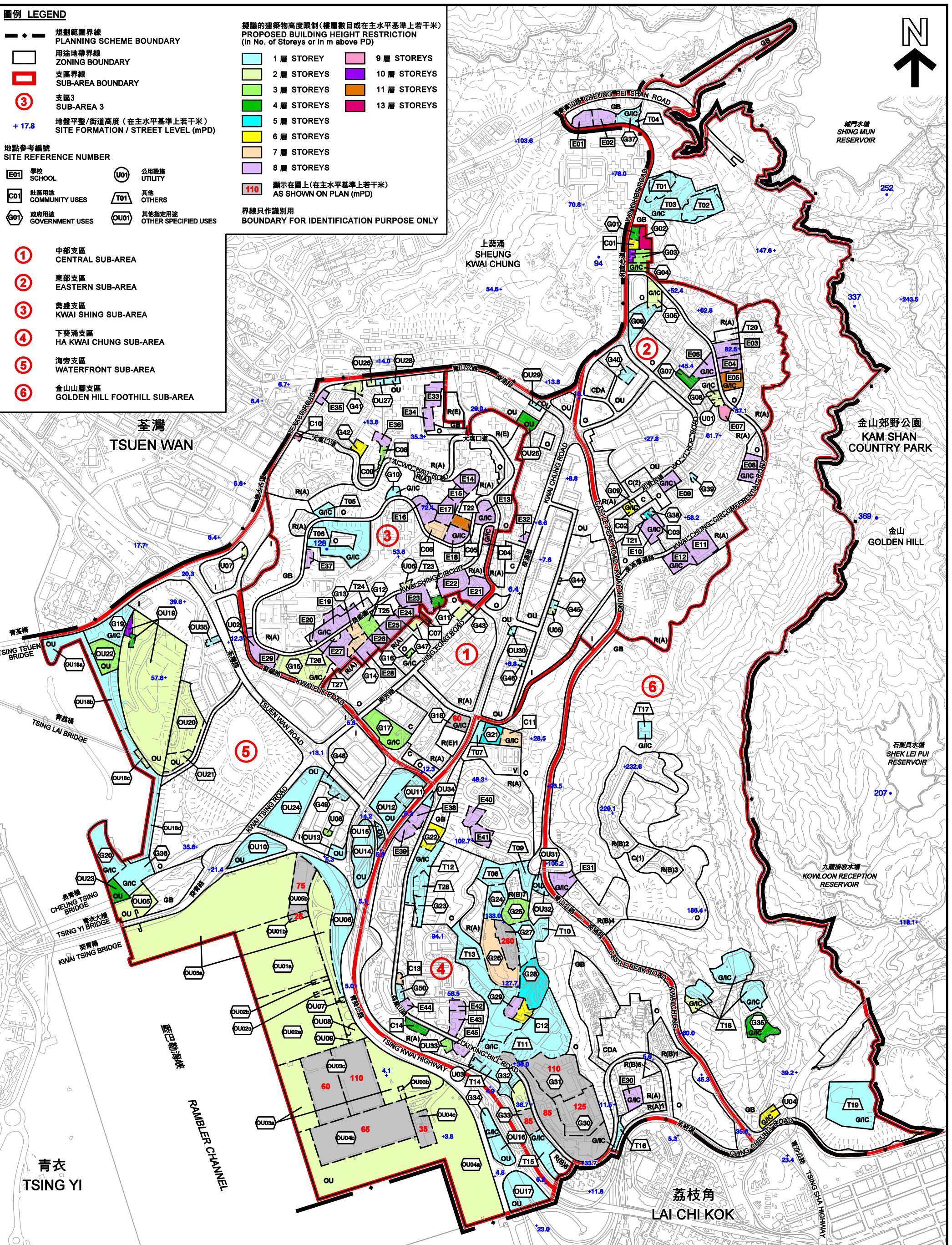
E01 學校
SCHOOL
C01 社區用途
COMMUNITY USES
G01 政府用途
GOVERNMENT USES
U01 公用設施
UTILITY
T01 其他
OTHERS
OU01 其他指定用途
OTHER SPECIFIED USES

① 中部支區
CENTRAL SUB-AREA
② 東部支區
EASTERN SUB-AREA
③ 葵盛支區
KWAI SHING SUB-AREA
④ 下葵涌支區
HA KWAI CHUNG SUB-AREA
⑤ 海旁支區
WATERFRONT SUB-AREA
⑥ 金山山腳支區
GOLDEN HILL FOOTHILL SUB-AREA

擬議的建築物高度限制(樓層數目或在主水平基準上若干米)
PROPOSED BUILDING HEIGHT RESTRICTION
(in No. of Storeys or in m above PD)

1 層 STOREY
2 層 STOREYS
3 層 STOREYS
4 層 STOREYS
5 層 STOREYS
6 層 STOREYS
7 層 STOREYS
8 層 STOREYS
9 層 STOREYS
10 層 STOREYS
11 層 STOREYS
13 層 STOREYS
110 顯示在圖上(在主水平基準上若干米)
AS SHOWN ON PLAN (mPD)

界線只作識別用
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY



本摘要圖於2012年3月21日擬備，所根據的資料
為地圖組別HM20C圖則編號6/7/10及11

EXTRACT PLAN PREPARED ON 21.3.2012
BASED ON MAP SERIES HM20C SHEETS
No. 6/7/10 AND 11

葵涌分區計劃大綱圖的擬議建築物高度限制
("政府、機構或社區"、"其他指定用途(加油站)"、"其他指定用途(貨物裝卸區)"、"其他指定用途(墳場)"、
"其他指定用途(與貨櫃有關用途)"、"其他指定用途(貨櫃碼頭)"、"其他指定用途(殯儀館與火葬場)"、
"其他指定用途(污水處理廠)"、"其他指定用途(電力支站)"、及"其他指定用途(屠場)"地帶)
PROPOSED BUILDING HEIGHT RESTRICTIONS UNDER KWAI CHUNG OUTLINE ZONING PLAN
("G/I/C", "OU(PFS)", "OU(CARGO HANDLING AREA)", "OU(CEMETERY)", "OU(CONTAINER RELATED USES)",
"OU(CONTAINER TERMINAL)", "OU(FUNERAL PARLOURS AND CREMATORIUM)",
"OU(SEWAGE TREATMENT WORKS)", "OU(ELECTRICITY SUBSTATION)" AND "OU(SLAUGHTER HOUSE)" ZONES)

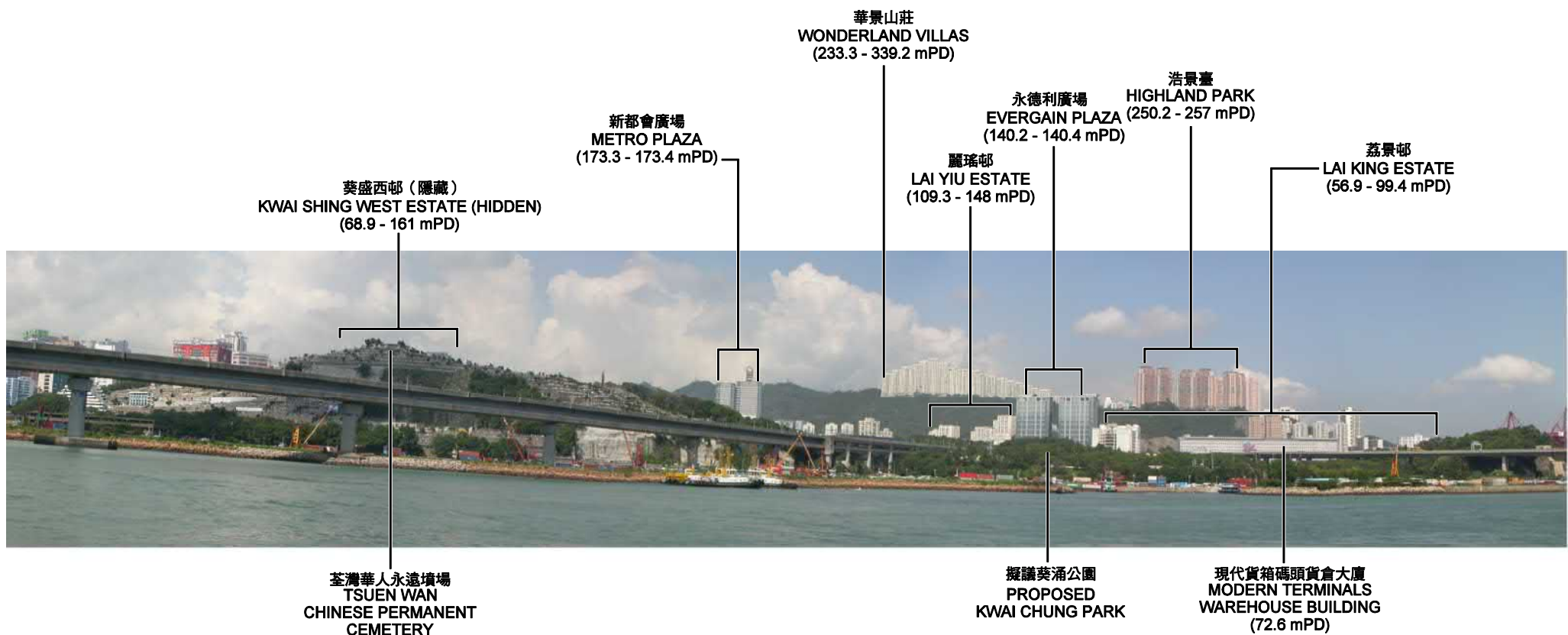
SCALE 1:15 000 比例尺
米 200 0 200 400 600 800 1 000 1 200 1 400 米
METRES

規劃署
PLANNING
DEPARTMENT

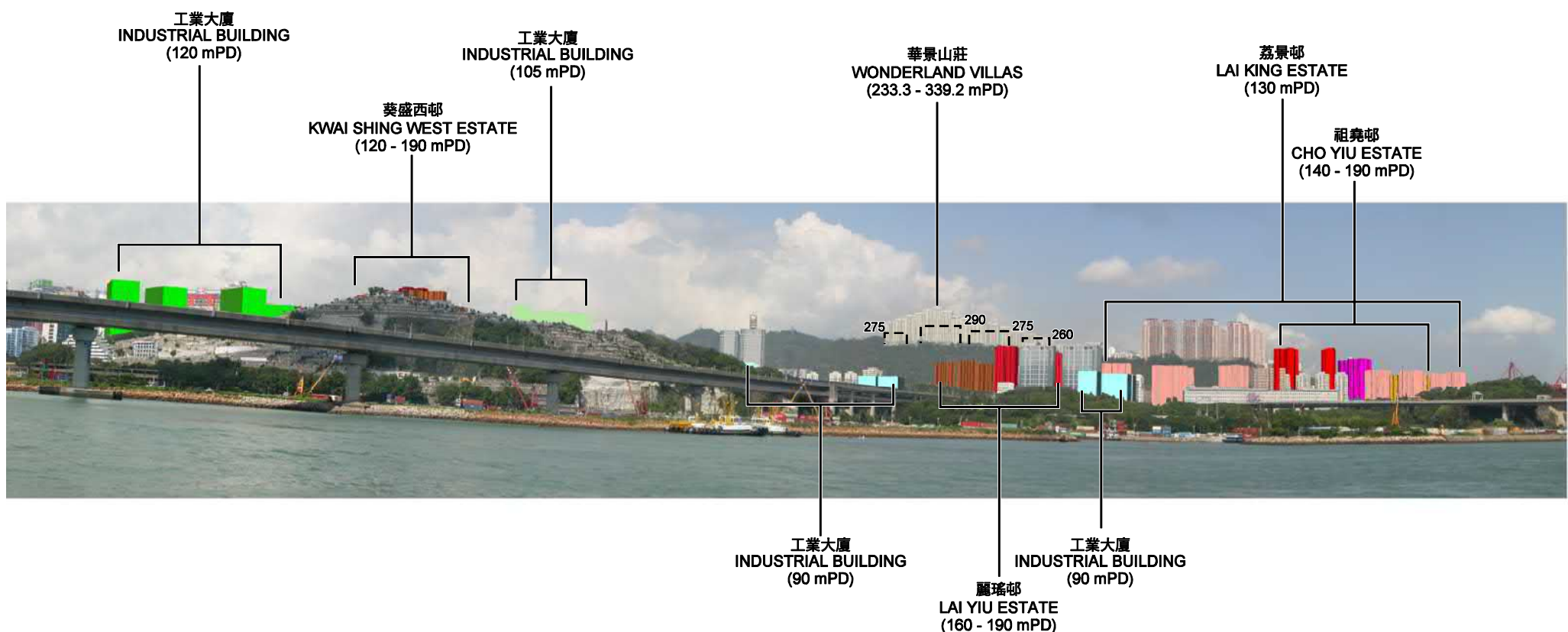


參考編號
REFERENCE No.
M/KC/11/1

圖 PLAN
8C

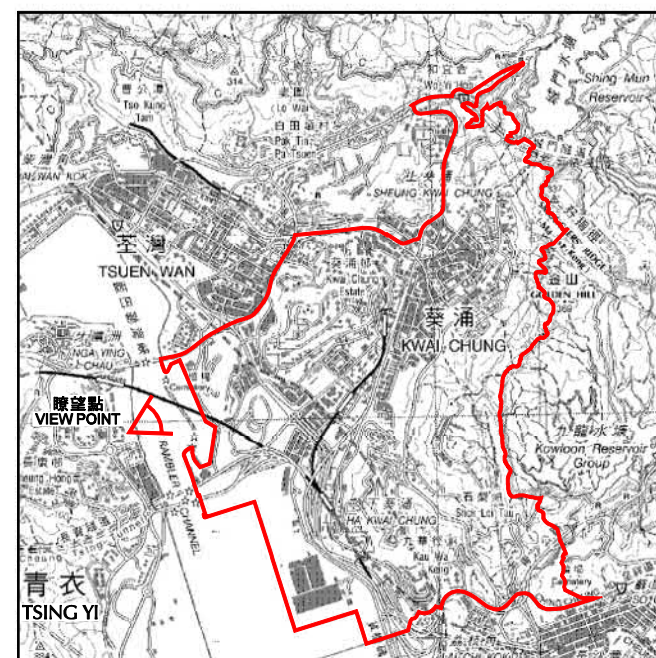


現有景觀 EXISTING VIEW



合成照片 PHOTOMONTAGE

實地照片的觀景點的位置圖
LOCATION PLAN OF VIEWING POINT OF SITE PHOTO



本圖於2012年3月5日擬備，所根據的資料為攝於2011年7月4日的實地照片
PLAN PREPARED ON 5.3.2012
BASED ON SITE PHOTO TAKEN
ON 4.7.2011

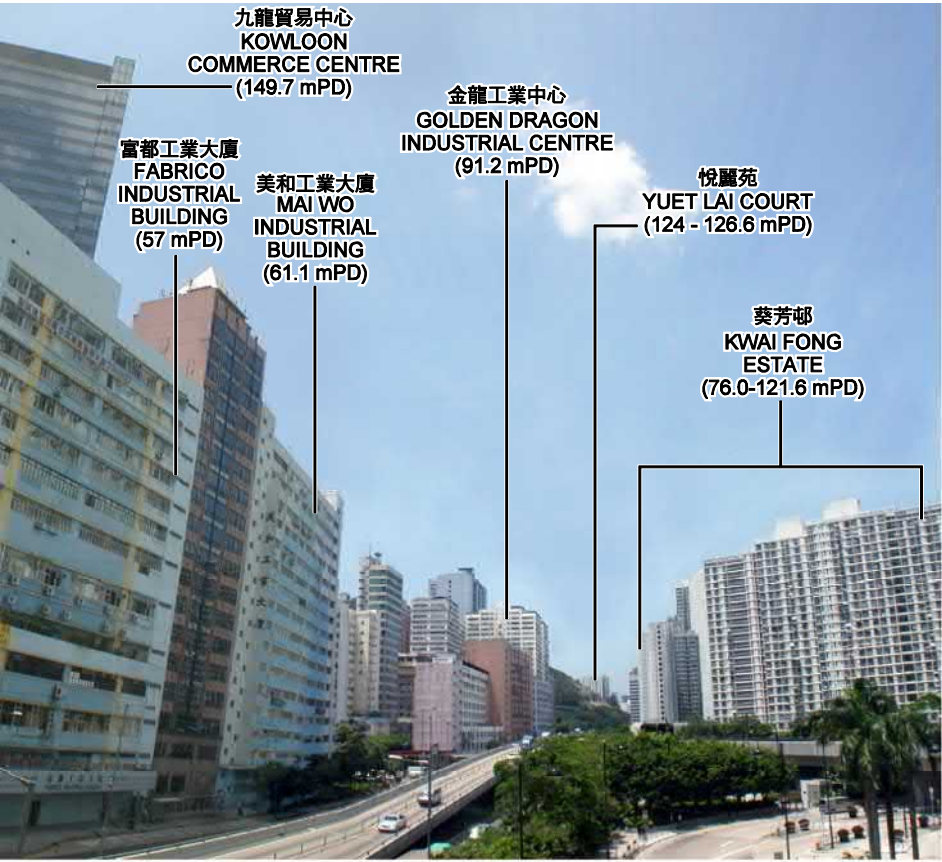
合成照片 PHOTOMONTAGE
在青衣海濱公園瞭望的景觀
VIEW FROM TSING YI WATERFRONT PROMENADE

規劃署
PLANNING
DEPARTMENT

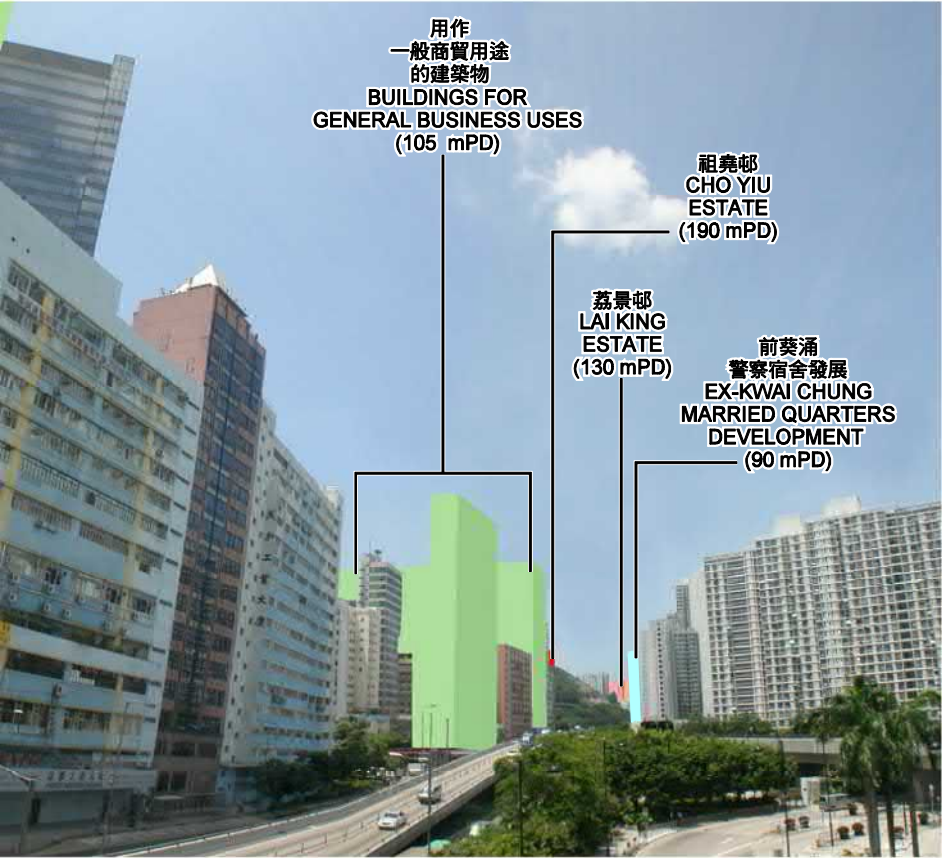


參考編號
REFERENCE No.
M/KC/11/1

圖 PLAN
8E

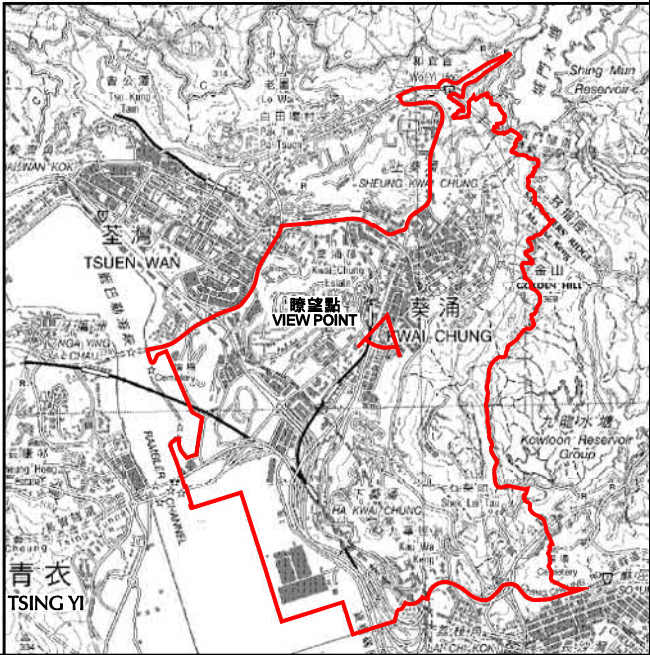


現有景觀 EXISTING VIEW



合成照片 PHOTOMONTAGE

實地照片的觀景點的位置圖
LOCATION PLAN OF VIEWING POINT OF SITE PHOTO



圖例
LEGEND

最高建築物高度（在主水平基準以上（米））
MAXIMUM BUILDING HEIGHT
(IN METRES ABOVE PRINCIPAL DATUM)



合成照片上只是粗略地描畫大廈輪廓／公共屋邨的布局設計
THE OUTLINE CONFIGURATIONS OF BUILDINGS / LAYOUT OF
PUBLIC RENTAL HOUSING ESTATES AS SHOWN ON
PHOTOMONTAGES ARE INDICATIVE ONLY

本圖於2012年3月5日擬備，所根據的
資料為攝於2011年7月4日的實地照片
PLAN PREPARED ON 5.3.2012
BASED ON SITE PHOTO TAKEN
ON 4.7.2011

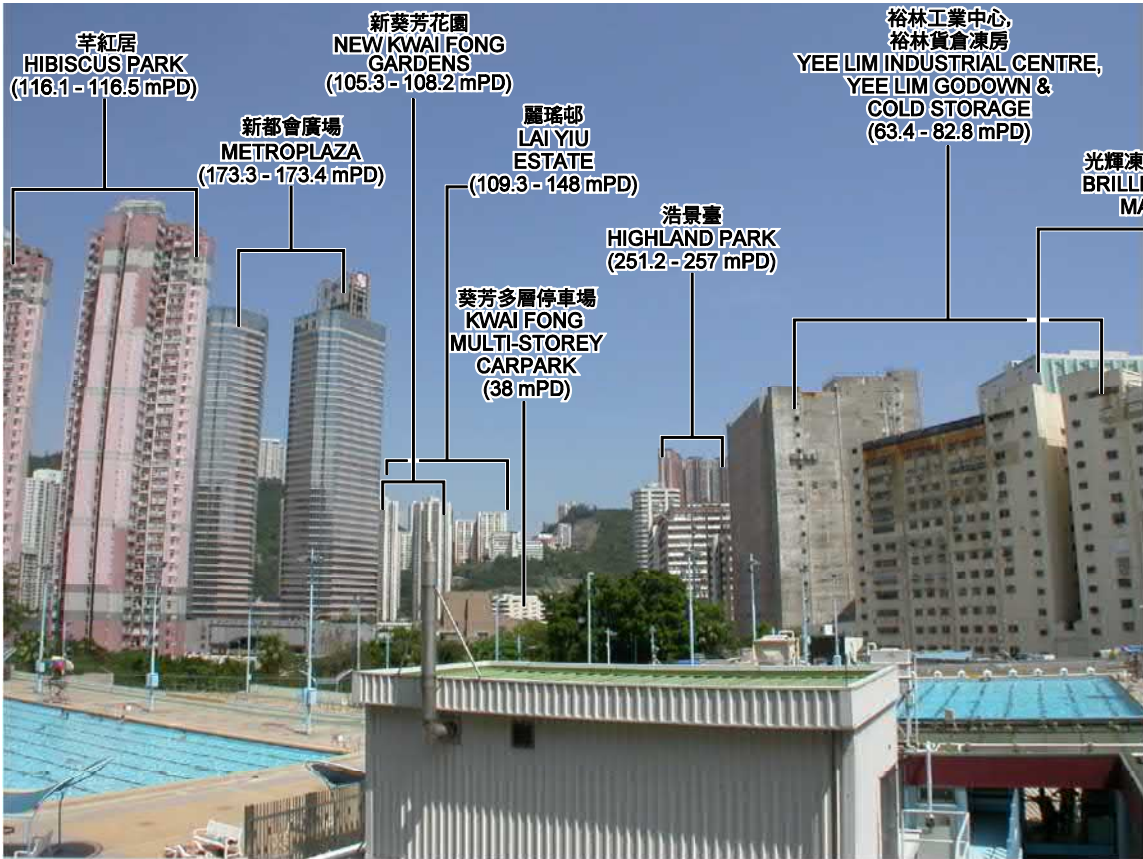
合成照片 PHOTOMONTAGE
在橫跨葵涌道行人天橋瞭望的景觀
VIEW FROM FOOTBRIDGE ACROSS KWAI CHUNG ROAD

規劃署
PLANNING
DEPARTMENT

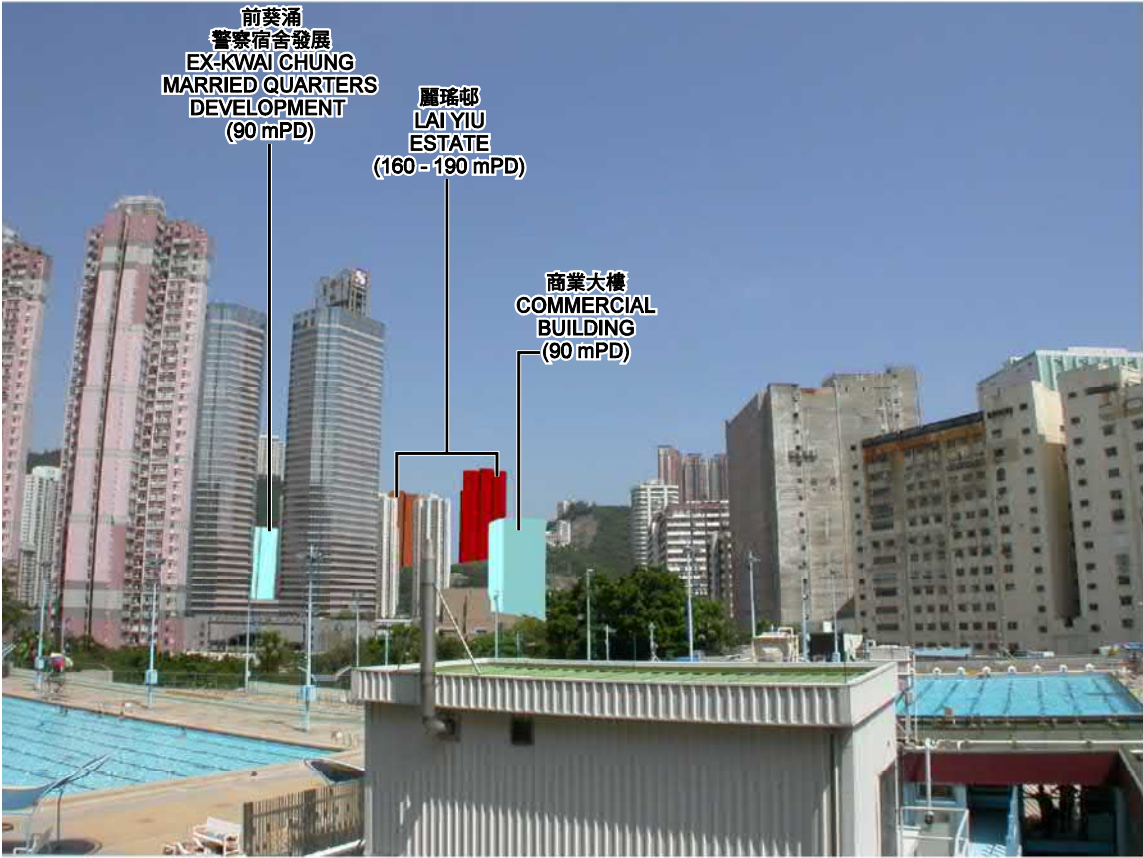


參考編號
REFERENCE No.
M/KC/11/1

圖 PLAN
8G

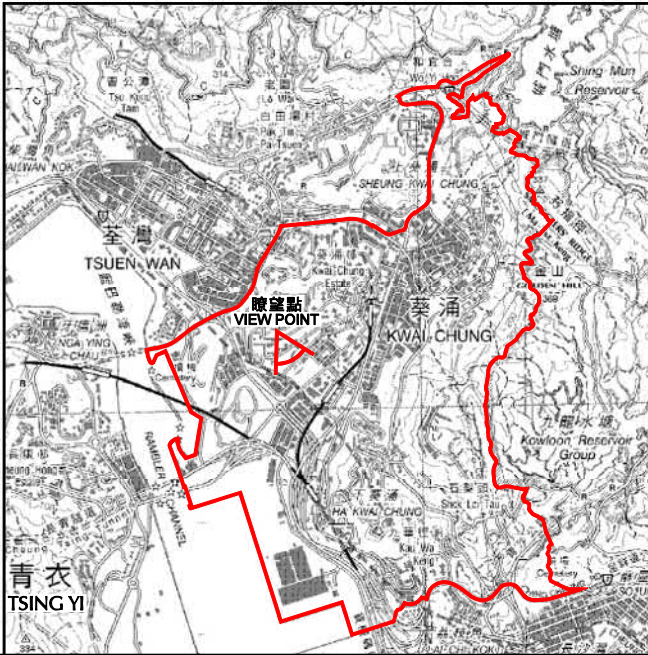


現有景觀 EXISTING VIEW



合成照片 PHOTOMONTAGE

實地照片的觀景點的位置圖
LOCATION PLAN OF VIEWING POINT OF SITE PHOTO



圖例
LEGEND

最高建築物高度 (在主水平基準以上(米))
MAXIMUM BUILDING HEIGHT
(IN METRES ABOVE PRINCIPAL DATUM)



合成照片上只是粗略地描畫大廈輪廓／公共屋邨的布局設計
THE OUTLINE CONFIGURATIONS OF BUILDINGS / LAYOUT OF
PUBLIC RENTAL HOUSING ESTATES AS SHOWN ON
PHOTOMONTAGES ARE INDICATIVE ONLY

本圖於2012年3月5日擬備，所根據的
資料為攝於2011年7月4日的實地照片
PLAN PREPARED ON 5.3.2012
BASED ON SITE PHOTO TAKEN
ON 4.7.2011

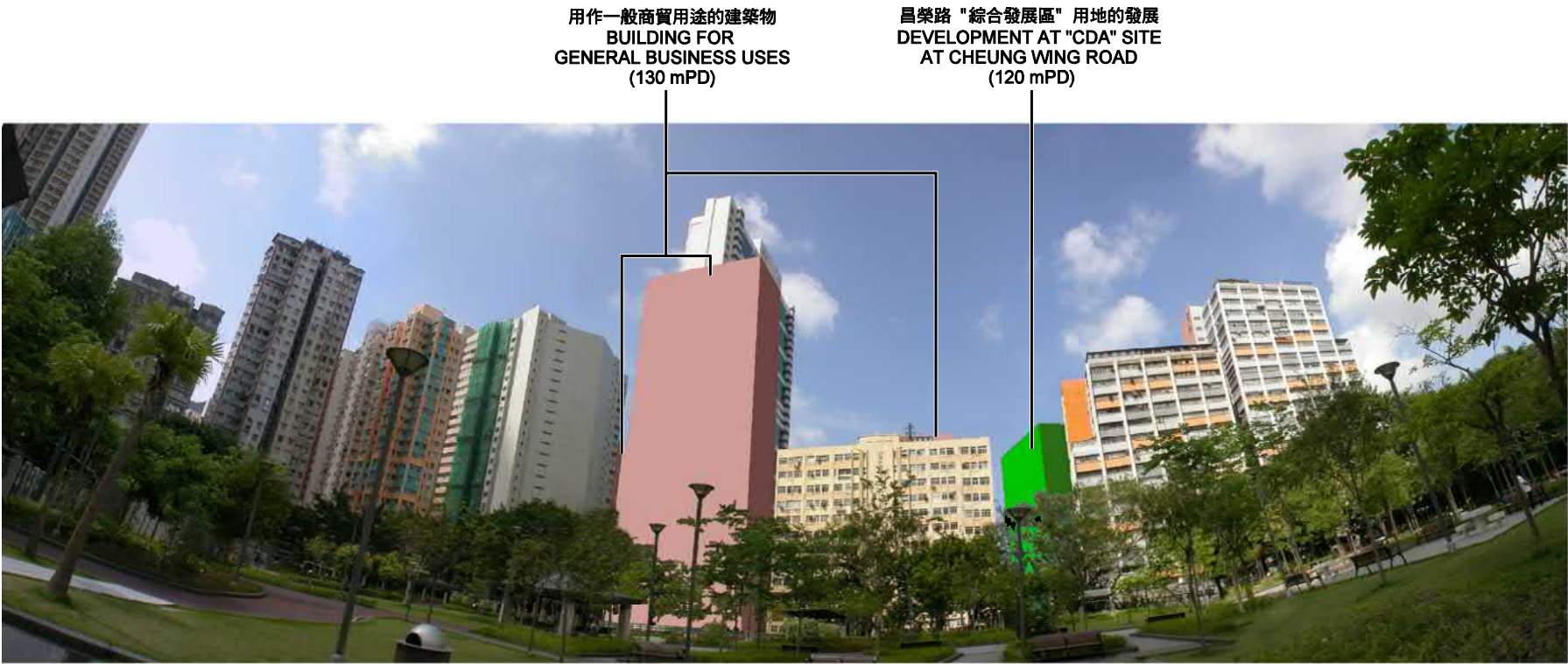
合成照片 PHOTOMONTAGE
在葵盛游泳池瞭望的景觀
VIEW FROM KWAI SHING SWIMMING POOL

規劃署
PLANNING
DEPARTMENT

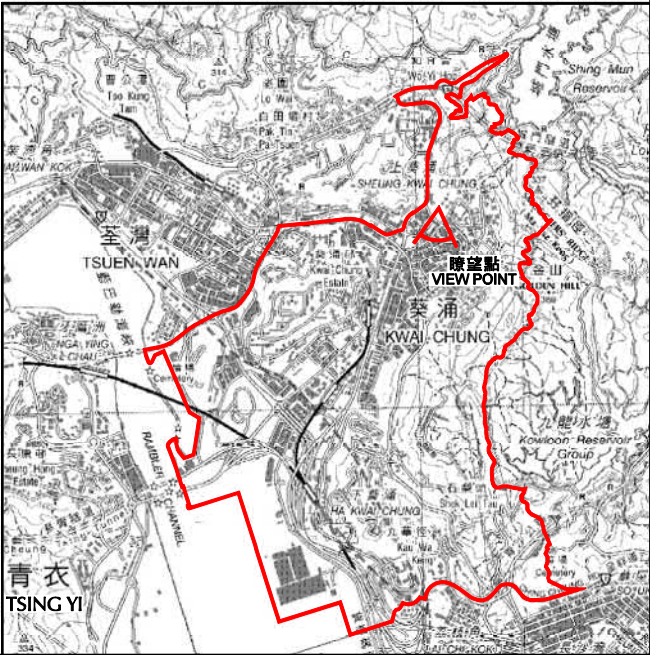


參考編號
REFERENCE No.
M/KC/11/1

圖 PLAN
8H



實地照片的觀景點的位置圖
LOCATION PLAN OF VIEWING POINT OF SITE PHOTO



圖例
LEGEND

最高建築物高度(在主水平基準以上(米))
MAXIMUM BUILDING HEIGHT
(IN METRES ABOVE PRINCIPAL DATUM)

120 mPD 130 mPD

合成照片上只是粗略地描畫大廈輪廓
THE OUTLINE CONFIGURATIONS OF BUILDINGS AS SHOWN ON
PHOTOMONTAGES ARE INDICATIVE ONLY

本圖於2012年3月5日擬備，所根據的資料為攝於2011年7月4日的實地照片
PLAN PREPARED ON 5.3.2012
BASED ON SITE PHOTO TAKEN
ON 4.7.2011

合成照片 PHOTOMONTAGE
在石蔭梨木道公園瞭望的景觀
VIEW FROM SHEK YAM LEI MUK ROAD PARK

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/KC/11/1

圖 PLAN
8J