

4 HONG KONG

CASE STUDY

HONG KONG – NORTH POINT

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TEAM

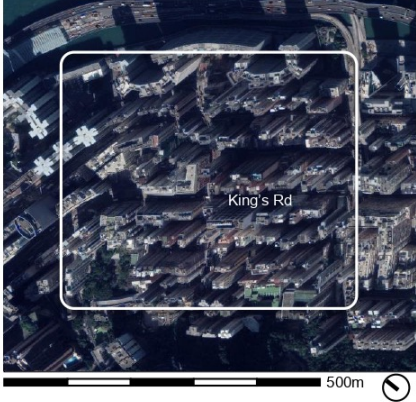
Mengqi Cao
Zixuan Zha

DATE

3/2021



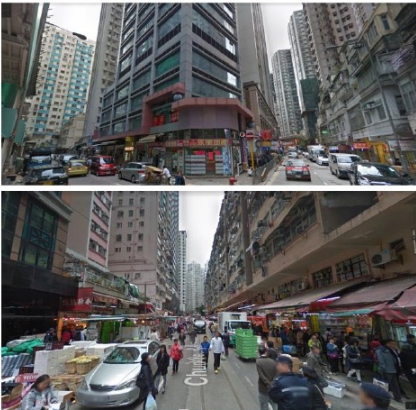
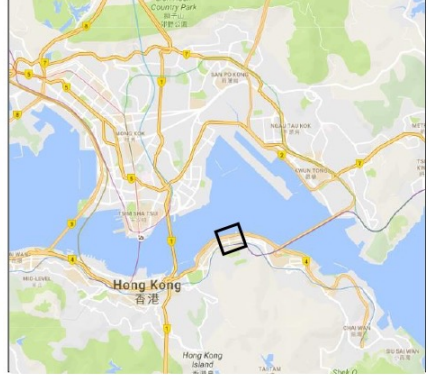
STUDY AREA



NEIGHBORHOOD



CITY





The study area consist of 4 main blocks:
Residential *1 + mixed-used(Residential/Commercial) *3



Narrow sidewalks run through each block
Other avenues in study area all take the commercial functions

No internal open space
3 public open space
- Provident Garden
- Tong Shui Road Garden
- Tin Hau Temple Road Sitting-out Area

Hierarchical Road System:

- City main road: high level commercial activities
- Community commercial street
- Residential streets





- 6 lanes, double-sided pavements
- Office Buildings: Malls, Banks, Restaurants, Pharmacies
- Tramcars, buses, cars


CASE STUDY	SECTION	TITLE
HONG KONG – NORTH POINT	2] CHARACTER	2.2] AVENUES & STREETS

Hierarchical Road System:


- City main road: high level commercial activities
- Community commercial street
- Residential streets

- Private street
- 2 lanes
- narrow sidewalks




- Open to public
- Pedestrian only



Java Street

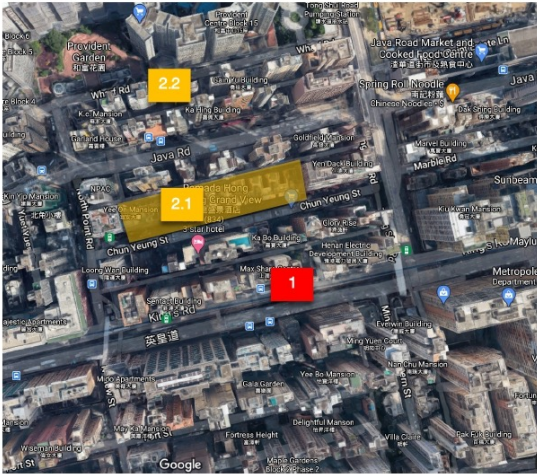
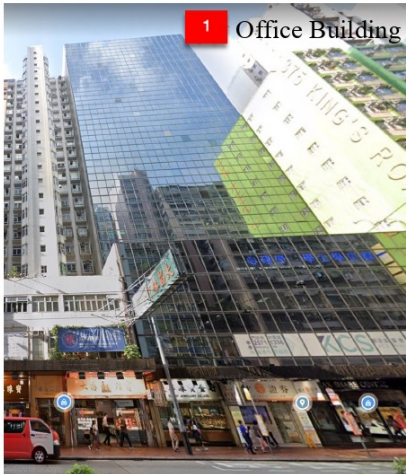
- One-way streets, 3 lanes, double-sided pavements
- buses, cars
- Commerce at the bottom: home design/building material companies, restaurants, convenience stores




Chun Yung Street

- One-way streets, 2 lanes, double-sided pavements
- Tramcars, buses, cars
- Commerce at the bottom: food market, road side stores, restaurants,

CASE STUDY	SECTION	TITLE
HONG KONG – NORTH POINT	2] CHARACTER	2.3] BUILDINGS

1 Office Building




2.2 Residential

Typical building types

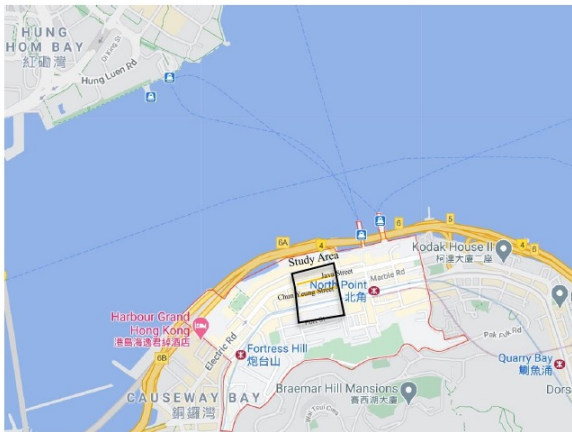
1 office building:
20-30 story towers on commercial podiums (podiums are typically between 3 and 8 floors)

2.1 Residential Slab building
10-story residential street wall buildings with ground floor commercial uses

2.2 Residential Tower Buildings on a Base
20-30 story residential high-rise towers typically above a 2 to 3 story commercial podium



2.1 Residential



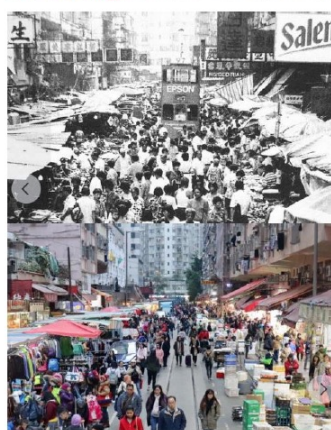
North Point

- mixed-use urban area in the in the northeastern part of Hong Kong Island; by the end of the 1960's North Point was listed as the **most densely populated** place on the planet in the Guinness Book of World Record
- Parts of North Point have been inhabited since before the **British arrived in the mid-19th century**
- During the Chinese Civil War, a large number of the rich and middle class from Shanghai fled to Hong Kong to escape the turmoil of war, many of them settled in North Point. In 1950, North Point became known as "**Little Shanghai**", since in the minds of many, it has already become the replacement for the surrendered Shanghai in China.
- The second group that moved to North Point were the Hokkien Fujianese, who were mostly displaced by political events in China but then soon mostly moved to countries in Southeast Asia. **The area became known as "Little Fujian"**.



Java Street

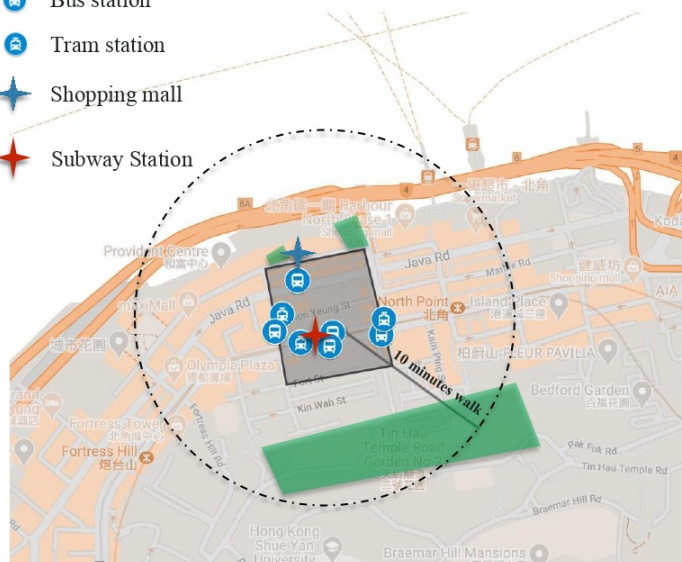
- 1930s: named after the Jawa Steamship Company at this area, which was specialized in passenger transport and trade with the Netherlands



Chun Yeung Street

- 1920s: Guo Chun Yeung, a wealthy businessman from Southeast Asia's Fujian province, developed the street into residential development
- Typical Hokkien trade settlements in Hong Kong

- Bus station
- Tram station
- Shopping mall
- Subway Station



Well served neighborhood

- Numerous Transportation Options within study area
2 tram station; 5 bus station; 1 subway station
- Good access to Public space
public parks & waterfront area
- Close to markets and groceries
food market at Chun Yueng Street
Houfu Shopping Center
(1 of the 5 largest shopping malls at north point)
- Close to the city main road
high level facilities: banks, government office

Existing drawbacks:

- Vehicles occupy the sidewalks for pedestrians
- City peddlers occupy the streets and roads
- Narrow public space





North Point Housing related statistics

- Residents bear comparably high purchasing power (higher median income)
- Large proportion of residents have high school educational level or above (85.9%)
- Larger average living space compare to the average level of HK/East District
- High density population area

	Primary	Secondary	College
Hong Kong	20.0%	47.3%	32.7%
East District	17.0%	44.6%	38.4%
North Point	14.1%	43.4%	42.5%

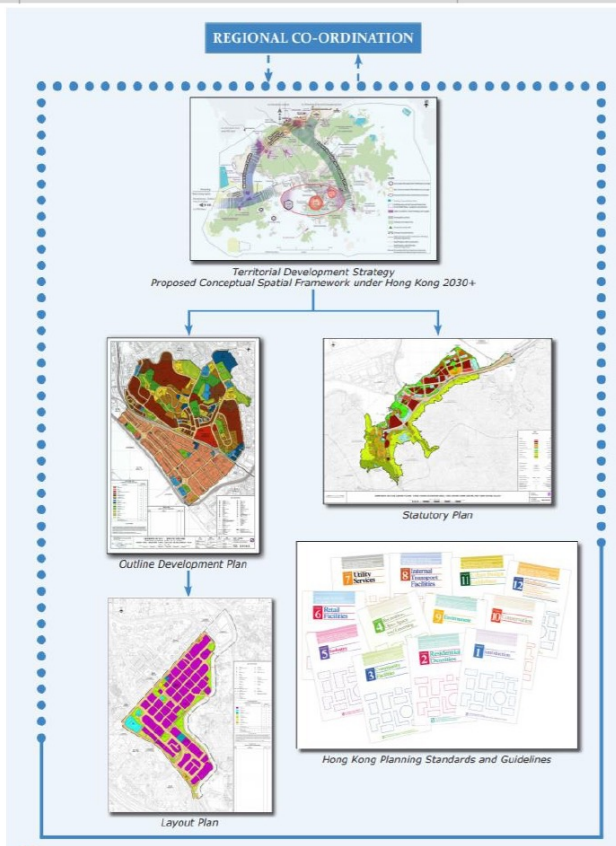
	Top 25%	Medium	Last 25%
Hong Kong	HK\$ 46 250	HK\$ 25 000	HK\$ 12 000
East District	HK\$ 55 700	HK\$ 29 830	HK\$ 13 950
North Point	HK\$ 59 160	HK\$ 30 000	HK\$ 14 000

Average Living Space	Top 25%	Medium	Last 25%
	54平方米	40平方米	32平方米
	56平方米	44平方米	33平方米
	62平方米	47平方米	32平方米

Resident population in Housing Market Area

Total population	555 034	106 822
Sex ratio	819	762

Source: Hongkong census and statistic department, 2016
<http://census.censtat.gov.hk/hong-kong/Eastern/CHMA/North-Point>



Planning system:

Hong Kong Planning department prepares development strategies at the **territorial level** and **various types of statutory and departmental plans at the district/local level**. In preparing these plans, reference will be made to the **Hong Kong Planning Standards and Guidelines**

- Territorial Development Strategy

The territorial development strategy provides a broad territorial planning framework to guide future development and provision of strategic infrastructure and serves as a basis for the planning of strategic growth areas and the preparation of district plans.

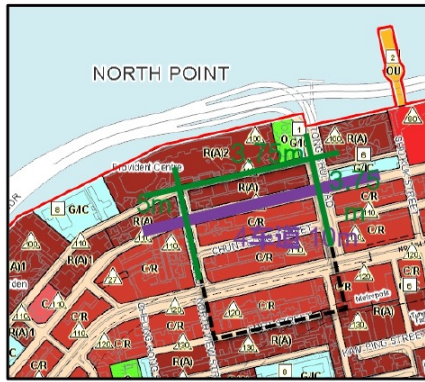
- Statutory Plans

The statutory plans has the following 3 major functions: 1) regulating development through specifying the types of permitted land-uses and development parameters on individual parcels of land; 2)reserving land for various types of uses; 3)undertaking enforcement and prosecution actions against unauthorized developments in the rural New Territories.

- Departmental Plans - layout plans

The departmental plans and layout plans zoom into a more specific level and provide more detailed level planning parameters

Source: Hongkong Planning department, Annual Report 2019
https://www.pland.gov.hk/pland_en/press/publication/ar_19/pdf/ar2019_en.pdf



OZP Zoning

More Information

CDA Comprehensive Development Area

O Open Space

RE Residential (Group E)

GB Green Belt

R(A) Residential (Group A)

C/R Commercial/Residential

R(C) Residential (Group C)

C Commercial

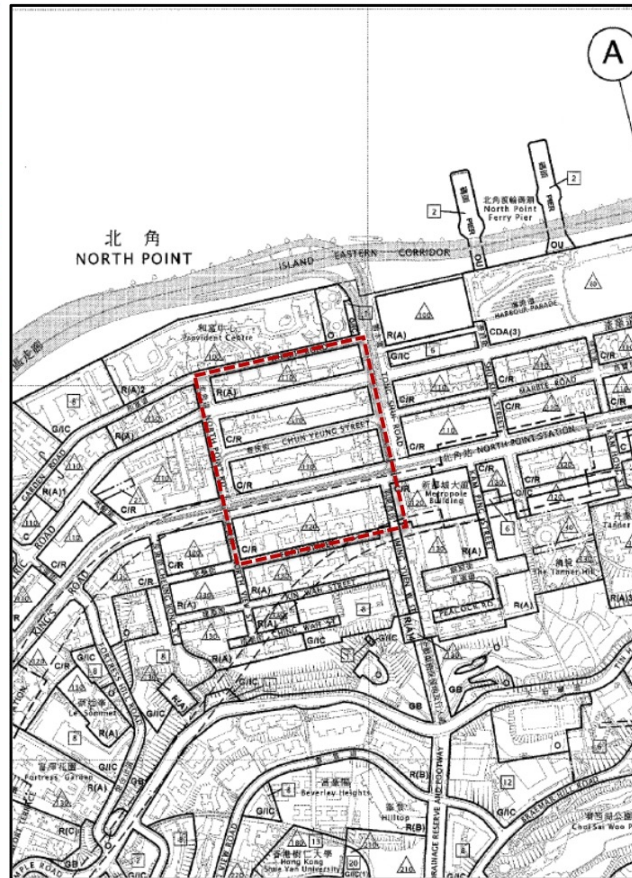
G/IC Government, Institution or Community

OU Other Specified Uses

R(B) Residential (Group B)

Maximum Building Height (In Metres Above Principal Datum)

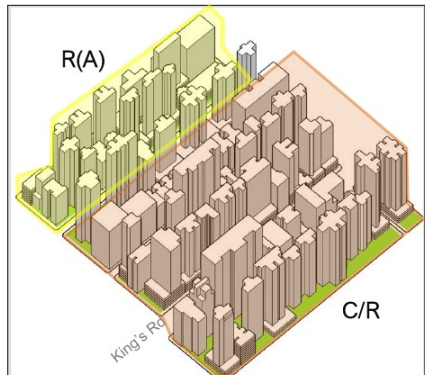
Maximum Building Height (In Number of Storeys)



ZONES

- C COMMERCIAL
- CDA COMPREHENSIVE DEVELOPMENT AREA
- C/R COMMERCIAL/ RESIDENTIAL
- R(A) RESIDENTIAL (GROUP A)
- R(B) RESIDENTIAL (GROUP B)
- R(C) RESIDENTIAL (GROUP C)
- R(E) RESIDENTIAL (GROUP E)
- G/IC GOVERNMENT, INSTITUTION OF COMMUNITY
- O OPEN SPACE
- OU OTHER SPECIFIED USES
- GB GREEN BELT
- BOUNDARY OF COUNTRY PARK
- BUILDING HEIGHT CONTROL ZONE BOUNDARY
- MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)
- MAXIMUM BUILDING HEIGHT (IN NUMBERS OF STOREYS)
- NBA NON-BUILDING AREA

SOURCES:
TOWN PLANNING ORDINANCE,
HONG KONG TOWN PLANNING BOARD
HONG KONG PLANNING AREA NO.8 – NORTH POINT – OUTLINE ZONING PLAN

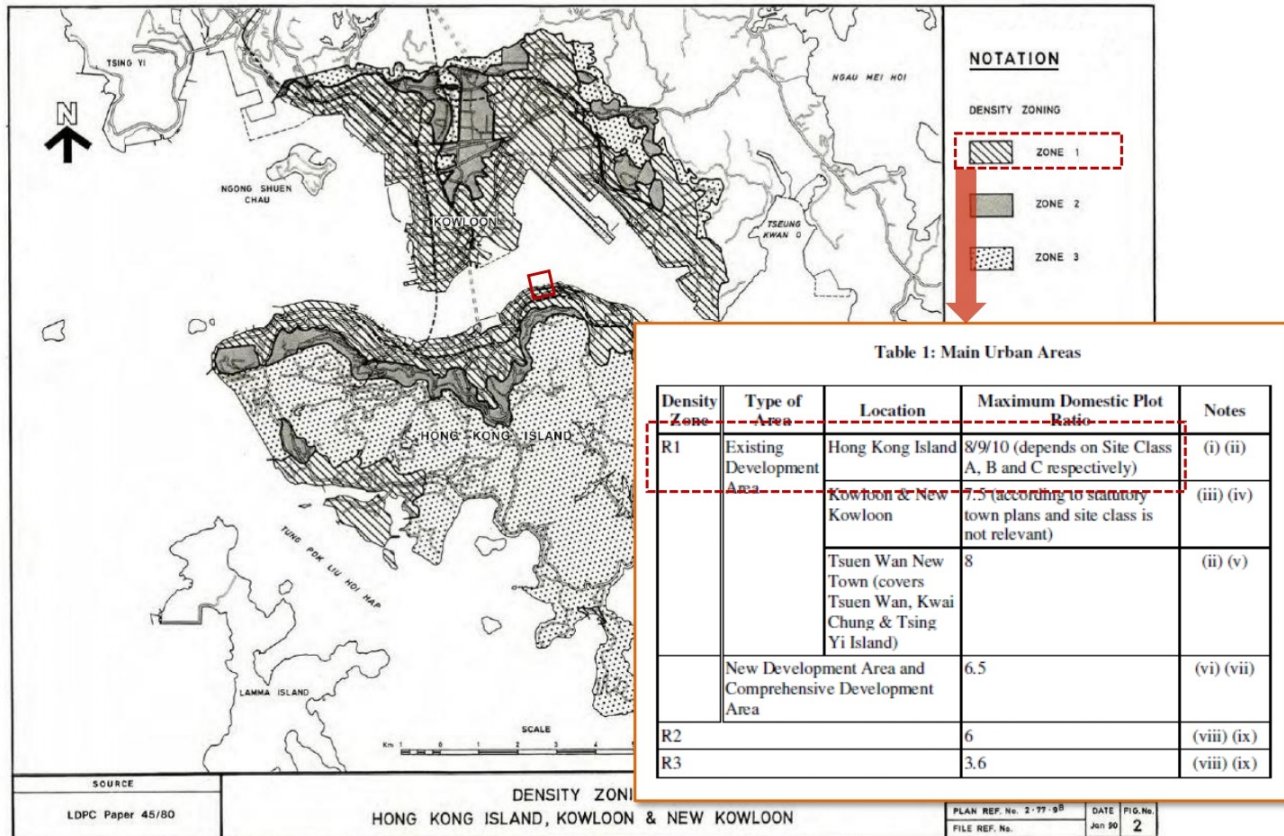


SUMMARY OF ZONING REGULATIONS (See Appendix for supporting research)

NOTES: See notes explained in the APPENDIX

1	ZONING DISTRICTS	C/R	R(A)	
2	LAND USE	COMMERCIAL/ RESIDENTIAL	RESIDENTIAL (GROUP A)	Group A for residential is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.
3	FAR	8/9 for residential	8/9	8 FAR for Zone 1, Class A residential - see p19
4	SITE COVERAGE	33.33%/ 37.5% for buildings higher than 61m	33.33%/ 37.5% for buildings higher than 61m	Depends on the types of specific streets it abuts on and the height of buildings - see p19
5	SETBACKS	/	/	
6	HEIGHT	110m/120m (IN METERS ABOVE PRINCIPAL DATUM)	110M (IN METERS ABOVE PRINCIPAL DATUM)	Specific building height restrictions are imposed for various development zones to provide better control of the building height profile, to preserve views to the ridgelines and to improve air ventilation within the area.
OTHER NOTABLE ZONING REGULATIONS				
7	ROADSPACE	Roadspace is assumed to be one sixth(16.7%) of DSA(Development Site Area) except for podium development in which no internal roads are required.		
8	OPEN SPACE	1m ² of LOS(Local Open Space) per person when there are more than 500 persons.		
9	SCHOOL FACILITIES	Depend on the combination of site area and demographic information		

DENSITY ZONING: ZONE 1 → R(A) in Hong Kong Island → Maximum Domestic Plot Ratio = 8/9/10



Urban Design Guidelines:

- 1] Reducing Site Coverage and Allow for more Open Space at grade:

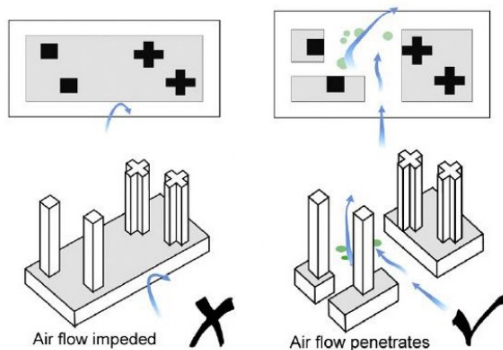
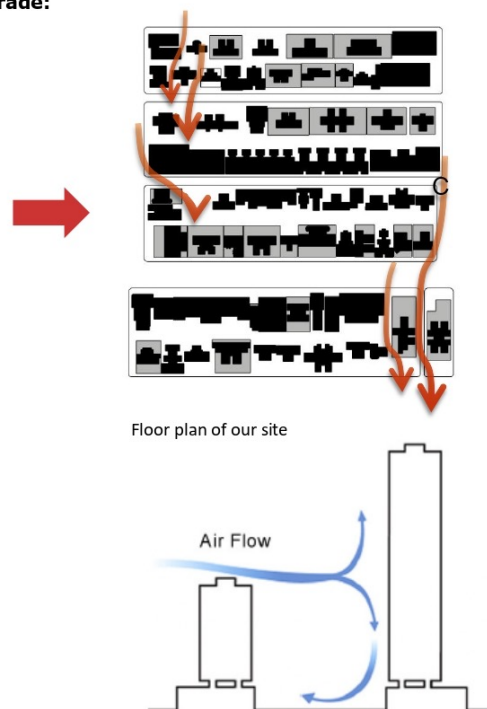


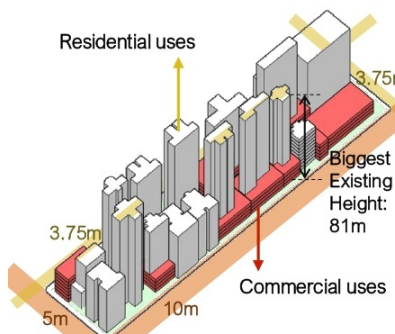
Figure 47 Reducing Site Coverage of the Podia to Allow More Open Space at Grade

Compact integrated developments and podium structures with full or large ground coverage on extensive sites typically found in Hong Kong are particularly impeding air movement and should be avoided where practicable. The following measures should be applied at the street level for large development/ redevelopment sites particularly in the existing urban areas:

- providing setback parallel to the prevailing wind;
- designating non-building areas for sub-division of large land parcels;
- creating voids in façades facing wind direction; and/or
- reducing site coverage of the podia to allow more open space at grade (Figure 47).



Stepping building height concept can help optimize the wind capturing potential of development itself.

**District: R (A)****Landuse:****Residential (Group A)**

- Group A: **high-density residential developments** Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.
 - Commercial uses permitted on the lowest three floors
- Height limitation: 110mPD(principal datum)
Site Coverage: 33.33%/37.5% for buildings higher than 61m

ZONES FOR RESIDENTIAL (GROUP A)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
For 'Residential (Group A)' zone and sub-zones of 'Residential (Group A)' zone except 'Residential (Group A)-1'	
Ambulance Depot Flat Government Use (not elsewhere specified) House Library Market Place of Recreation, Sports or Culture Public Clinic Public Transport Terminus or Station (excluding open-air terminus or station) Residential Institution School (in free-standing purpose-designed building only) Social Welfare Facility Utility Installation for Private Project	Commercial Bathhouse/Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Government Refuse Collection Point Hospital Hotel Institutional Use (not elsewhere specified) Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Office Petrol Filling Station Place of Entertainment Private Club Public Convenience Public Transport Terminus or Station (not elsewhere specified) Public Utility Installation Public Vehicle Park (including container vehicle) Religious Institution School (not elsewhere specified) Shop and Services Training Centre
In addition, the following uses are always permitted (a) on the lowest three floors of a building, taken to include basement; or (b) in the purpose-designed non-residential portion of an existing building, both excluding floors containing wholly or mainly car parking, indoor vehicle lots and/or plant room.	
Eating Place Educational Institution Institutional Use (not elsewhere specified) Off-course Betting Centre Office Place of Entertainment Private Club Public Convenience Recyclable Collection Centre School Shop and Services Training Centre	

Site Coverage & Maximum Domestic Plot Ratio

Table 4 Maximum Permitted Site Coverage and Plot Ratio in Relation to Building Height for Domestic Buildings under First Schedule of B(P)R

Height of building as defined under B(P)R in metres	Maximum domestic site coverage (%)			Maximum domestic plot ratio		
	Class A Site	Class B Site	Class C Site	Class A Site	Class B Site	Class C Site
up to 15	66.6	75	80	3.3	3.75	4.0
up to 18	60	67	72	3.6	4.0	4.3
up to 21	56	62	67	3.9	4.3	4.7
up to 24	52	58	63	4.2	4.6	5.0
up to 27	49	55	59	4.4	4.9	5.3
up to 30	46	52	55	4.6	5.2	5.5
up to 36	42	47.5	50	5.0	5.7	6.0
up to 43	39	44	47	5.4	6.1	6.5
up to 49	37	41	44	5.9	6.5	7.0
up to 55	35	39	42	6.3	7.0	7.5
up to 61	34	38	41	6.8	7.6	8.0
over 61	33.33	37.5	40	8.0	9.0	10.0

Class A Site means a site, not being a Class B site or Class C site, that abuts on **one** specified street, as defined under B(P)R, not less than 4.5m wide.

Class B Site means a corner site that abuts on **two** specified streets, as defined under B(P)R, neither of which is less than 4.5m wide.

Class C Site means a corner site that abuts on **three** specified streets, as defined under B(P)R, none of which is less than 4.5m wide.

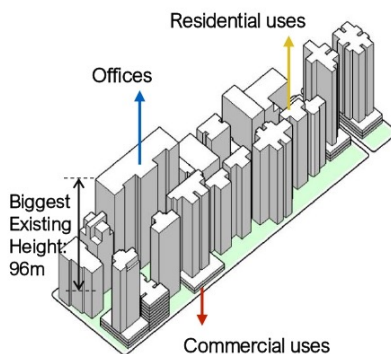
If there is non-domestic floor space, maximum domestic plot ratio will be reduced according to the provisions of the B(P)R composite building formula.

Maximum domestic **site coverage**: **33.33/37.5**

Maximum domestic **plot ratio**: **8.0/9.0**

Practicum: Residential Planning in Global Cities | Columbia GSAPP - PLAN6121 2021 | Mengqi Cao & Zixuan Zha

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**District: C/R****Landuse:****Commercial/ Residential as Mixed-Use Zones**

- Help balance travel flows at peak hours

Height limitation: 110mPD/120mPD (principal datum) depends on its location

Site Coverage: 33.33% for buildings higher than 61m

ZONES for COMMERCIAL/ RESIDENTIAL

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Ambulance Depot Eating Place (not elsewhere specified) Exhibition or Convention Hall Flat Government Use (not elsewhere specified) Hotel House Library Market (not elsewhere specified) Off-course Betting Centre Office Place of Entertainment Private Club Public Clinic Public Utility Installation Public Vehicle Park (excluding container vehicle) Residential Institution School (in free-standing purpose-designed school building, in a commercial building or in the purpose-designed non-residential portion* of an existing building only) Shop and Services (not elsewhere specified) Social Welfare Facility Utility Installation for Private Project	Broadcasting, Television and/or Film Studio Commercial Bathhouse/Massage Establishment Eating Place (Cooked Food Centre only) Educational Institution Government Refuse Collection Point Hospital Information Technology and Telecommunications Industries Institutional Use (not elsewhere specified) Market (Hawker Centre only) Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Petrol Filling Station Place of Recreation, Sports or Culture Public Convenience Public Transport Terminus or Station Recyclable Collection Centre Religious Institution School (not elsewhere specified) Shop and Services (Motor-vehicle Showroom and Printing, Publishing and Allied Industries only) Training Centre

Commercial/ Residential Zones as "Mixed Use Zones"

- Residential and office uses are complementary in terms of the demands they make on transport systems in that when one is generating trips the other is attracting them and vice versa. This may be expected to **help balance travel flows in each direction at peak hours**.

Regulations on Height:

- On land designated "**Commercial/Residential**", no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment **in excess of the maximum building heights**, in terms of metres above Principal Datum, as stipulated on the Plan, **or height of the existing building, whichever is the greater**.

SOURCE: HONG KONG PLANNING AREA NO.8 APPROVED NORTH POINT OUTLINE ZONING PLAN NO.S/H8/26

Urban Design Guidelines:

- 2] Building Free Zone: building heights are capped so as to stay below the skyline

It has been generally supported by the community that **ridgelines / peaks are valuable assets and their preservation should be given special consideration** as far as possible in the process of development.

The Metroplan (1991) guidelines which recommended **20% to 30% building free zone below selected sections of ridgelines (Figure 2) could be used as a starting point**, but allowing flexibility for relaxation on individual merits and for special landmark buildings to give punctuation effects at suitable locations.

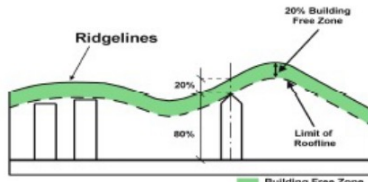


Figure 2 Building Free Zone to Preserve Views to Ridgelines



2] Considerations of Views to the Ridgelines: Building Height Restriction

The building height restrictions are to **preserve the views to the ridgelines from public viewpoints and to maintain a stepped building height concept** recommended in the Urban Design Guidelines Study **with lower buildings along the waterfront**, taking into account the local area context, **the findings of an Expert Evaluation on Air Ventilation Assessment (AVA EE) of wind circulation in the area**, and the need to **maintain visually compatible building masses in the wider setting**.

There are four height bands in general – 100 metres above Principal Datum (mPD), 110mPD, 120mPD and 130mPD in the Area for the “C”, “C/R”, “R(A)” and “R(E)” zones - increasing progressively from the waterfront to the inland and foothill areas. The proposed building height bands **help preserve views to the ridgelines, achieve a stepped height profile for visual permeability and wind penetration and circulation, reduce the solidness of the Area and maintain a more intertwined relationship with the Victoria Harbour edge.**

5] URBAN DESIGN GUIDELINES

3] Human Scale:

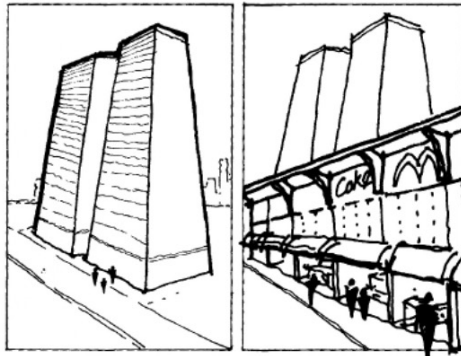
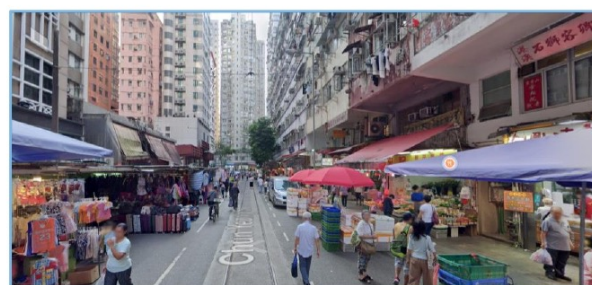


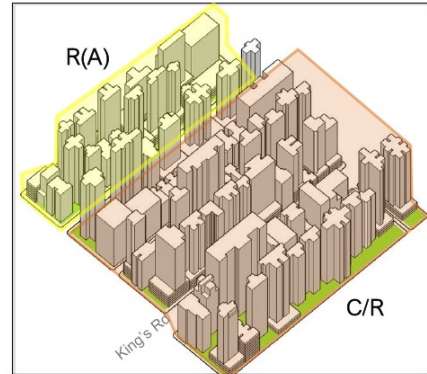
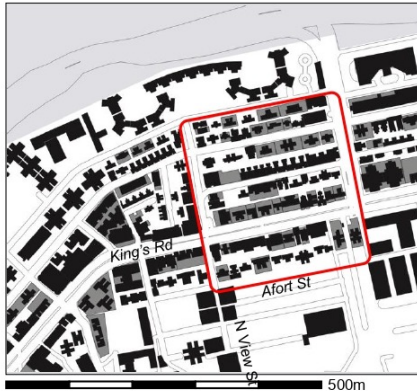
Figure 17 Dwarfed by Tower Podium Reinforces Human Scale

Human scale design elements such as perimeter arcades should be provided in order to create an intermediate scale between human and building. **Building façade** and **podium edge**, in terms of architectural design, architectural detailing and in the choice of building materials, should have interest, particularly at ground and first floor level.



Façade of tall buildings are always several meters set back from the façade of podium edge





PROS

- Maximize the residential density to the extent by planning terms to augment the supply of land and living space of people
- Define different residential types based on the amount of broad streets it abuts on and apply different site coverage and plot ratio standard to guarantee not only the sunlight and ventilation conditions of streets, but also the provision of open space within each district (performance-based)
- To protect and enhance the relationship of the city and its natural landscape context, Take the view for ridgelines into account for building height regulations
- Encourage mixed uses within each district in both horizontal and vertical perspective
- Consider a lot about basic sanitary, ventilation and sunlight conditions for public space to alleviate the negative effects high density brings about

Cons

- Sunlight condition for each residential building hasn't been considered a lot
- Streets are too narrow and setbacks are not clearly regulated, which results in negative impacts on districts concerning noises
- Located in the site close to the waterfront districts, consider few about flood risk

Cultivating community green networks

Identify projects for community gardens, gardens in home/ office/ schools and urban farms, and encourage communal open spaces in developments at multiple scales and levels

Reinventing the “Green and Blue System” networks

The study area is closed to the waterfront area. However, current green space and waterways are fragmented. Cultivating the community green networks and gradually developing a green and blue system would be the next step to better the community environment.

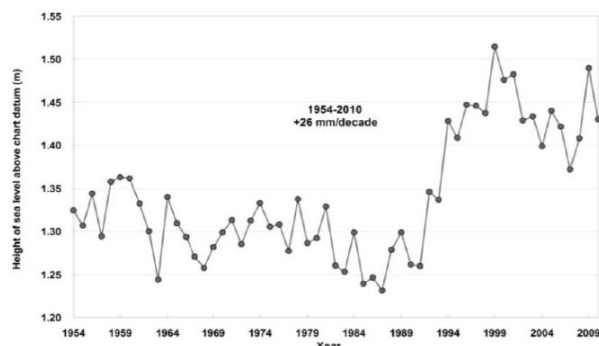


Figure 2. The annual mean sea level at North Point/Quarry Bay (1954–2008). Adapted from Zhang, Xie, and Liu (2011).

Sunlight for Residence

When regulated the height for each building, take into account the sunlight condition of residential buildings nearby

Climate issues: Flood risk

The mean sea level has risen by 30mm per decade between 1954 and 2015 .

Responding actions:

- Appraise and identify the risk level for places in coastal floodplains and map the “100-year floodplain”, which is the area that will be inundated by the flood event having a 1-percent chance of being equaled in any given year
- Develop and implement guidelines for coastal flood-risk management that will enable authorities to seek different rules:
 1. Optional regulations for height or building façade or setback should be allowed for buildings in areas with flood risk
 2. Regulations would exempt floor area or specific land-use regulations to encourage new and existing buildings to meet or exceed the flood resistant construction standards
- Restrict or avoid new development in high-flood-risk zones in Hong Kong unless the stakeholders agree to face the flood risk or to adapt practices

1] RESIDENTIAL DENSITY GUIDELINES: MAXIMUM DOMESTIC PLOT RATIO

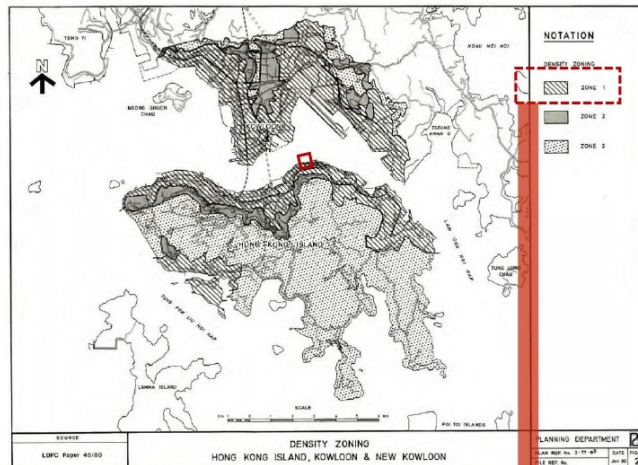


Table 1 Maximum Domestic Plot Ratios – Main Urban Areas

Density Zone	Type of Area	Location	Maximum Domestic Plot Ratio	Notes
R1	Existing Development Area	Hong Kong Island	8/9/10	(i) (ii)
		Kowloon & New Kowloon	7.5	(iii) (iv)
		Tsuen Wan New Town (covers Tsuen Wan, Kwai Chung & Tsing Yi Island)	8	(ii) (v)
	New Development Area and Comprehensive Development Area		6.5	(vi) (vii)
R2			6	(viii) (ix)
R3			3.6	(viii) (ix)

Objectives and Functions of Residential Density Guidelines

- Residential density: Measured by which land is occupied by **either development or population**.
- Provide implications **for the provision of public facilities**, such as transport, utilities and social infrastructure.
- Boost the short- to medium- term land supply for housing use **by maximizing the residential density** to the extent in order to **augment the supply of land in Hong Kong and living space of Hong Kong people**.

Residential Zone 1:

- Highest density of residential development** and applies to districts **well served by high capacity public transport systems** such as rail station or other major transport interchange.
- Buildings **often incorporate a significant component of commercial floorspace on the lower one to three floors**.

- Maximum domestic plot ratio of 8, 9 and 10 depends on Site Class A, B and C respectively.**
- If there is non-domestic floorspace, **maximum domestic plot ratio will be reduced** according to the provisions of the B(P)R composite building formula. → applies to Commercial/ Residential Zones

REFERENCES:

Introduction & Background:

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Lawrence W.C. Lai, Daniel C.W. Ho, K.W. Chau, Mark H. Chua, Repeated planning applications by developers under statutory zoning: A Hong Kong case study of delays and design improvements in private residential development, *Land Use Policy*, Volume 57, 2016, Pages 709-718, ISSN 02648377, <https://doi.org/10.1016/j.landusepol.2016.06.031>.

Zoning:

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