



# HKIP Planning and Development 規劃與拓展

Vol. 33  
2019

香港規劃師學會期刊  
Journal of the Hong Kong Institute of Planners



香港規劃師學會  
THE HONG KONG INSTITUTE OF PLANNERS



臻於至善  
PURSUING PLANNING EXCELLENCE



## **HKIP Council**

### **President**

Mr Lawrence Y C Chau

### **Vice Presidents**

Mr Edward W M Lo

Ms Sharon C G Liu

### **Honorary Secretary**

Mr Alan K K Lau

### **Honorary Treasurer**

Mr Thomas Lee

### **Immediate Past President**

Ms Fiona SY Lung

### **Council Member**

Mr Kim On Chan

Ms Carmen SY Chan

Mr Ivan M K Chung

Mr Cho Ming Li

Ms Sam H N Lok

Prof Bo Sin Tang

Ms Rebecca SW Wong

Ms Theresa W S Yeung

Dr Owen L F Yue

Ms Michelle M SYuen

### **Student Representatives**

Ms Clarice N S Ho

Mr Keith L C Wu

## **HKIP Editorial Committee**

### **Chief Editor**

Dr Kenneth Tang

### **Honorary Editor**

Dr Sidney Wong

### **Committee Members**

Ms Hermion Au

Mr Kim On Chan

Dr Roger Chan

Mr Yee Ming Fu

Dr Joanna Lee

Ms Rachel Lo

Mr Matthew Tai

Ms Lily Yam

Ms Natalie Yim

# Table of Contents

## 01 Feature Paper

- Tackling Double-ageing with Double Smart** 4  
*K.K. Ling and Karen Lee*
- Macao: Ageing Population and Ageing Buildings** 22  
*Kamiena Wong, Peter Lam and Roger Chan*
- To What Extent Can Smart City Technologies Solve Problems with Our Aging Population?** 28  
*Daniel Chun*

## 02 Column

- Transit-oriented Development in Hong Kong – by Design or by Default?** 34  
*Jimmy C.F. Leung*
- A&A – Problems & Solutions** 38  
*Andrew Lam*
- Ageing and the Environment** 40  
*Betty Ho*

## 03 Student Corner

- Planning for the Aged: Observations from Sham Shui Po District** 45  
*Keith L.C. Wu and Vidyan P.S. Ng, The Young Planners Group*

## 04 Viewpoints

- Possible Way Forward for Increasing the Supply of Social Welfare Sites and Premises** 52  
**增加社福用地及處所供應的可能進路**  
*K.K. Ling*

## 05 News

- Introduction of Honorary Member – Mr Stanley Wong Yuen-fai** 61
- HKIP Awards 2018**
- Silver: Hung Fuk Estate · Harmony for Everyone 63
- Silver: Exhibiting Nature – The "GREAT" Home 64
- Merits: 3D Planning and Design System – A Smart Planning Tool 65
- Merits: Sha Po Fairyland 66
- Merits: Market Development in Sham Shui Po 68
- Young Planners Award: Mr. Louis Cheung 69
- Young Planners Award: Ms. Lok Hom Ning 70
- List of HKIP Members** 72
- List of Registered Professional Planners** 81



## Message from the Editors

Ageing of our population and building stock is poised to become a great challenge in highly urbanized cities of the world, albeit at different scale and complexity. In this Issue of the Journal, experienced planners and experts examine the phenomenon of “double-ageing” from different perspectives with a view to devising feasible and sustainable solutions.

K.K. Ling and Karen Lee put forward an innovative “double-smart” approach to tackle this problem in Hong Kong. The authors also advocate city-wide contributions from different stakeholders of the community to come up with feasible solutions and suggest that planners have a critical role in this process.

Kamiena Wong, Peter Lam and Roger Chan share their insights on the “double-ageing” phenomenon based on experience from Macau, a neighbouring city of Hong Kong. They propose that such problem could be addressed regionally by tapping into the resources in the Greater Bay Area, and locally by more efficient urban renewal policies and measures.

Daniel Chun, who is an IT and smart city expert, gauges the extent to which smart city technologies could be deployed to tackle the problem of ageing population in Hong Kong.

Our three columnists, Jimmy Leung, Andrew Lam and Betty Ho write on three interesting planning topics, namely, “Transit-oriented Development in Hong Kong”, “A&A” and “Ageing and the Environment”.

Starting from this Issue, we have included a new section called “Viewpoints” to garner discussion on government policies and measures. In this Issue, K.K. Ling shares his views regarding the government’s policy on supply of social welfare sites and premises.

In the Student Corner, Keith Wu and Vidyan Ng of the Young Planners Group have written an interesting paper on “Planning for the Aged - Observations from Sham Shui Po District”, which is based on fieldwork.

Last but not least, we are pleased to include two special sections in this Issue, namely the coverage on the 2018 HKIP Award winners and the introduction of the newly elected HKIP Honorary Member, Mr. Stanley Wong.

**Editorial Committee**  
August, 2019

## Feature Paper

*“Grow old along with me! The best is yet to be...”*  
— Robert Browning

# 01

## Feature Paper

# Tackling Double-ageing with Double-smart

---

**K.K. Ling and Karen Lee**

*K.K. Ling is the former President of HKIP (2007-2009) and former Director of Planning (2012-2016). He is now the Director of Jockey Club Design Institute for Social Innovation and Professor of Practice (Planning) of The Hong Kong Polytechnic University. He is also the Adjunct Professor of The University of Hong Kong and The Chinese University of Hong Kong.*

*Karen Lee is the Project Manager II (Spatial) of the Jockey Club Design Institute for Social Innovation of The Hong Kong Polytechnic University. She is a chartered town planner and project manager specialising in urban integration and city management strategies.*

*Keywords: population ageing, building stock ageing, technology, smart city, smart ageing, double-ageing, double-smart, smart city governance, smart neighbourhood, smart community, planning standard, guidelines, HKPSG, age-friendly city, ageing-in-place, urban integration, city management, urban design.*

## Introduction

Population ageing and building stock ageing are usually tackled as two separate subjects and each has already received much attention. However, the Hong Kong community at large is less aware that the combined impact of population ageing and building ageing, i.e. “double ageing”, is a much more complex issue to address. If not tackled properly and in a timely manner, “double ageing” as a socio-economic issue will have significant impact on the sustainable development of Hong Kong, significantly affecting the liveability and resilience of the city.

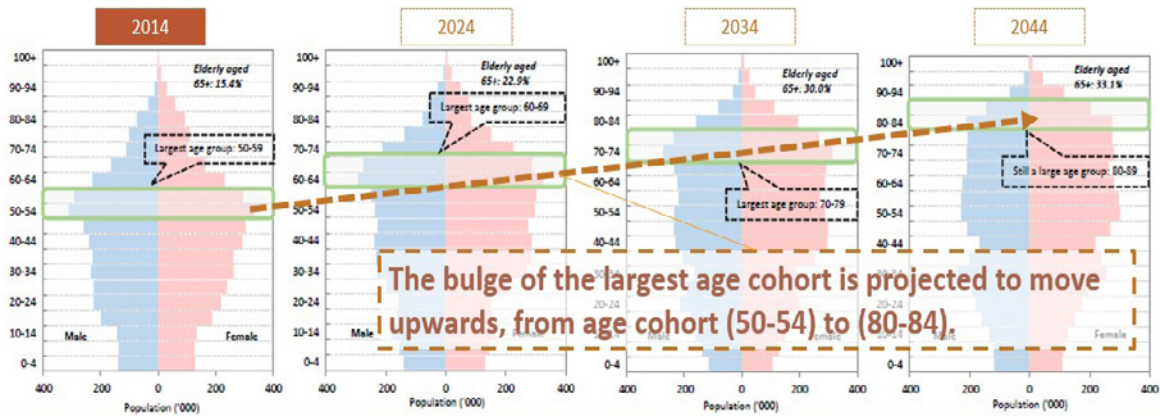
A strategic policy framework to tackle the complex issue of double-ageing is still lacking. The first objective of this paper is to elaborate on the problems and evaluate existing efforts in tackling the challenge. As problem identifiers and solution advocates for the city, town planners ought to articulate the socio-economic challenges of double-ageing in the strategic policy agenda and play a facilitating role in coordinating interdisciplinary efforts to tackle the issue. This paper advocates an integrated, people-centric “double-smart” approach to leverage the merits of smart ageing and smart city in tackling double-ageing and bring positive changes for the city.

## Double-ageing: the unique challenge for Hong Kong

### Population ageing

Double-ageing is an issue forewarned in the latest version of strategic plan of Hong Kong, “HK2030+: Towards a Planning Vision and Strategy Transcending 2030” (HK2030+). As a population with the highest life expectancy in the world, Hong Kong’s population is ageing amongst the fastest of all economies (Elderly Commission, 2017). The increase in life expectancy means that bulge of the largest age cohort at present, 50-54 year olds, is projected to move upwards to 80-84 by 2044 (see Figure 1).

According to 2015-2064 population projections, Hong Kong’s elderly population (65+) will increase from 15.3% of the total population (1.12 million people) in 2015 to 30.6% (2.51 million) in 2043 and 35.9% (2.58 million) in 2064 respectively, putting massive pressure on the already gridlocked medical, social welfare and elderly support services system. If we take 85+ as the benchmark that a certain degree of caring services is almost unavoidable, the cohort would increase almost five-fold from 2.2% in 2014 to 10.1% in 2064. Society at present tend to focus resources on addressing the needs of the elderly



**Figure 1** Population forecast of age cohort 50-54 within a 30-year window (Source: Elderly Commission, 2017)

with chronic health problems such as dementia, physical disability or mental health issues, but underserve elderlies with geriatric syndrome, such as falls, frailty, functional decline, delirium and dizziness. This and a shrinking household size and working population suggests an increasing dependency of old-olds on young-olds and the working population to care for them. Assuming other factors such as health and socio-economic factors remain unchanged, the demand for long-term care services (LTC) for old-olds will rise even faster than the rate of growth of the elderly population (Elderly Commission, 2017).

Census statistics not only paints a clear picture of how fast our population is ageing, it also highlights the need for the society to cope with social changes and the ever-changing needs of its population. According to the 2016 By-census, there were over 152,000 “older persons”, i.e. elderly aged 65+, living alone, constituting 13.1% of the overall population of “older persons”. The 2016 Census also highlighted that 293,000 (25.2%) are “elderly doubletons”, i.e. “older persons” living with their spouses (Census and Statistics Department, 2018). If the “older persons” do not have family members or carers who can assist and care for their daily living, this will increase their demand for LTC. Coupled with the shortage of

land supply, the shrinking labour force and the long lead time to plan and deliver the required care services, there is urgency to review the needs of the old-olds and young-olds and to ensure adequate resources will be made towards the specific needs of the ageing population.

#### *Dilapidating housing stock*

Meanwhile, the building stock in Hong Kong is ageing concurrently with its dwellers.

According to the HK2030+ study, the number of private housing units aged 70 or above was only 1,100 in 2016, but this number would multiply by 300 times to reach 326,000 in 2046, seriously affecting the quality of life of residents living in the decaying building (PlanD, 2016). If the quality of the ageing housing stock cannot be maintained, upgraded and refreshed in a sustainable and timely manner, this will significantly affect the livelihood of our citizens and the liveability of the city.

Hong Kong’s ageing building stock is complicated by two factors: **ultra-high building density**<sup>1</sup> and **multiple ownership**.

The “undivided shares” mechanism<sup>2</sup> invented by Hong Kong developers in the 1950s has

<sup>1</sup> *The Making of Hong Kong: from Vertical to Volumetric* (Shelton et al, 2011) discussed comprehensively the building density control problem in the city. The building code before 1956 controlled building density by specifying building height in proportion to street width, permitting a ratio of 2:1. However, as building technology improved and rapid increase in housing demand, the building code changed to allow buildings to rake back a maximum of 76 degrees from the centre line of the abutting street to control their shadow on the street. In some cases, buildings have maximised the plot ratio up to 20.

<sup>2</sup> Against the convention of selling a building erected on the lot(s) in whole, Hong Kong developers in the 1950s invented the “undivided shares” mechanism where the selling of individual flats within a building to large number of property owners who collectively owned the lot(s) on a pro rata basis. It has since become a common phenomenon that a high-rise high-density building in Hong Kong would include hundreds of small property owners creating a situation of multiple ownership, which in legal terms is known as “stratified titles”.

successfully helped to address the acute housing problem in Hong Kong. However, such development pattern, coupled with the ultra-high building density in 1950s and 1960s<sup>3</sup>, has also left the city with the following issues regarding how to improve the functionality and integrity of ageing housing stock:

**1. Unattractive gain in development potential:** Redevelopment of these buildings is usually very costly. A huge effort and lengthy time is required to deal with a large number of small property owners.

**2. Poor building management and maintenance:** The general absence of owners' corporations may bring about health and safety issues, in particular maintenance, hygiene and building safety issues.

**3. Hefty liability for property owners:** The high repair and maintenance cost may also be considered by many small property owners as unaffordable and/ or not worthy of investment;

**4. Degrading condition of building structure:** This may be made worse by large scale presence of illegal structural additions and alterations, affecting the structural integrity of the building;

**5. Inadequate or unsatisfactory vertical accessibility:** The old building code allowed non-provision of lift services for buildings of not higher than 9 storeys. Even if lift services are provided, to maximise the provision of shopping frontage lift lobby may only be provided at the mezzanine or the basement level where users will need to go one-floor stairs up or down the ground level reaching the lifts. One typical example is the Golden Building built above the Golden Computer Arcade in Sham Shui Po where the residents need to go down 45 flight of very steep, small steps from the ground floor level to reach the lift lobby. Residents' mobility and willingness to leave their home will drop as they age or as they become increasingly frail. (See Image 1).

The government has been applying multiple strategies to tackle building stock ageing by improving the functional performance of buildings



**Image 1** Golden Computer Arcade and Golden Building lift lobby on lower ground level

to extend the building life. Most buildings, unless declared as monuments or having special values, would unavoidably come to a time needing demolition and redevelopment. Even with the government's efforts in expediting redevelopment and subsidising rehabilitation it is not adequate to counteract the issues brought about by the astronomical increase in the number of ageing buildings in the city. The problem is most intense in old urban cores: over 70% of Hong Kong's ageing building stock is located within the oldest districts in Hong Kong, namely, Sham Shui Po, Yau Tsim Mong, Kowloon City, Wan Chai and the Eastern District (PlanD, 2016).

The complexity of redeveloping Hong Kong's old buildings is highlighted in the Urban Renewal Authority (URA)'s on-going District Study for Yau Ma Tei and Mong Kok ("Yau Mong District Study"), which aims to review and develop a new approach and strategy to trigger urban renewal in densely built and heavily populated areas. Whilst

<sup>3</sup> Compared with the maximum plot ratio of 8/9/10 for domestic buildings and 15 for non-domestic buildings permitted under the present Building (Planning) Regulations of the Buildings Ordinance



the report is not officially available when this article is written, the complexity of the Yau Mong project is noted from various sources:

1. More than 800 buildings within the study area lack redevelopment potential as the overall plot ratio has reached the permitted development capacity (URA, 2017).

2. There are about 2,300 buildings with a building life of 30 years+ that have not used up the plot ratio allowance. However, as they are scattered around the Yau Mong area a basket of planning tools will need to be deployed to create potential for redevelopment (URA, 2019).

3. There are about 200 buildings with relatively good development potential. If developers take up the redevelopment responsibility for those with plot ratio gain leaving the rest to the URA, the planning and redevelopment potential of the project will be low and the impact sporadic (Ibid).

4. The estimated total acquisition cost of the

Yau Mong project is over HK\$1.1trillion (Ibid). Given that the plot ratio would usually need to be increased by more than a double to cover the cost of urban renewal projects (Bastillepost, 2018), URA would face a HK\$200 billion deficit if it were to continue using the present model to redevelop the Yau Mong area (URA, 2019), causing a massive drain on public resources.

The issues above highlight that redevelopment will not be a financially sustainable way to trigger urban renewal in the city. In any case, the rate of improving the functional performance of the building stock through demolition and redevelopment can hardly catch up with the rate of building stock ageing. **Building rehabilitation** is gaining momentum to become the key strategy adopted by the government to combat urban decay and improving the quality of life of the citizens in Hong Kong. At least HK\$10.35 billion of public funds have been allocated to existing schemes and subsidies through different mechanisms (Table 1).

Administrative Organisation	Name of Scheme	Building Eligibility	Use of Subsidy	Public Funds Allocation (HK\$)
URA	Common Area Repair Works Subsidy	Private residential/ composite building aged 30 or above	Common area	(No data available)
	Operation Building Bright 2.0	Private residential/ composite building aged 50 or above	Common area	3 billion
	Fire Safety Improvement Works Subsidy Scheme	Composite building not under single ownership	Common area	2 billion
	Lift Modernisation Subsidy Scheme	Private residential/ composite building	Lift modernisation works	2.5 billion
	"Smart Tender" Building Rehabilitation Facilitating Services	Private residential/ composite building	Common area	300 million
	Mandatory Building Inspection Subsidy Scheme	Private residential/ composite buildings aged 30 years or above	Common area	500 million
	Home Renovation Interest-free Loan	Private residential buildings aged 30 years or above (excluding buildings of 3 storeys or below)	Private area (individual units)	(No data available)
	Home Renovation Hardship Grant	Private residential buildings aged 30 years or above (excluding buildings of 3 storeys or below)	Private area (individual units)	350 million <sup>4</sup>
Hong Kong Housing Society (HKHS)	Building Maintenance Grant Scheme for Elderly Owners	Private domestic building/ composite building	Private area (individual units)	1 billion
Buildings Department	Building Safety Loan Scheme	Private residential/ commercial/ composite/ industrial buildings	Common parts and Private area (individual units)	700 million
			Total	10.35 billion

**Table 1** Summary of existing assistance and subsidy schemes for building rehabilitation (updated until March 2019)  
(Sources: URA, HKHS, Buildings Department, LegCo documents)

<sup>4</sup> from 2008/09 to 2012/13

### *Evaluating existing efforts against the true societal cost of double-ageing*

The government's effort in using financial incentives to encourage owners to invest in the repair and upkeep of ageing buildings was commendable.

Nonetheless, double-ageing is most acute in **old urban cores** with a high concentration of ageing population with low income living in ageing building stock. Some residents may be more affected by the effects of double-ageing due to the following circumstances:

**1. A time-consuming process with high uncertainty:** Under the multiple ownership pattern, coupled with the absence of owners' corporations, obtaining the consensus of all owners to carry out comprehensive repair and renovation of the common areas and facilities is unavoidably a time-consuming process.

**2. Bulk of the financial assistance is to subsidise repair and maintenance of common areas and facilities within the building:** Whilst these schemes have relieved substantially the heavy financial burden of the elderly owner-occupiers on their pro-rata cost, the remaining cost they need to bear may still be significant for many as a lot of the occupiers in old buildings are retirees or near retirement.

**3. Limited subsidies for renovation and refurbishment of the private units:** Whilst the external conditions and outlooks of many old buildings benefitted from these schemes are substantially improved, the elderly owner-occupiers may not be able to afford to simultaneously upgrade the internal conditions of individual units, which have a more direct impact on their daily living and quality of life.

**4. Physical constraints of old buildings:** Little can be done to retrofit lift facilities for overcoming issues of unsatisfactory vertical accessibility for the elderly residents. This remains one of the most difficult issues for enabling ageing-in-place, especially in terms of improving elderly residents' physical health and social connectedness with the community.

**5. Diminishing neighbourhood support:** About 60% of sub-divided flats were found in these districts, with Sham Shui Po and Yau Tsim Mong accounting for 40% of such units (Census and Statistics Department, 2016). The occurrence of a large number of sub-divided flats will not only bring about building safety issues, it also weakens the neighbourhood network and diminishes neighbourhood support.

Ageing is a process. To a person, it is a process of diminishing functional abilities for self-care. To a building, it is a process of declining functional performance for its inhabitants.

Imagine Hong Kong in 30-years' time: large number of people aged 85+ with self-care abilities diminishing to a critical stage and living in high-rise, high-density buildings of declining functional performance. The conventional wisdom that a property is an asset may not hold any more as the high repairing and maintenance cost to upkeep its functional performance may turn such an asset to liability. The conventional belief that home is a safe and comfortable place may also not hold any more if access to such home becomes a difficult everyday endeavour and the poor building condition degrades the quality of life. This is especially problematic for "hidden" vulnerable elderly, in particular those with geriatric syndrome and frailty issues but are not supported and cared for under the medical and social welfare system, and lone elderly and elderly couples without strong familial support.

### **A "Double-smart" Approach**

All is not grim, however.

To tackle double-ageing we have to understand not only the present olds, but also the future olds. As noted in the Elderly Commission's 2017 Elderly Services Programme Plan, the socio-demographic characteristics of the elderly population in Hong Kong are changing rapidly. The future elderly are expected to be more health conscious, more financially capable, better educated and more attuned to information and technology development than the old-olds at present. As they are more likely to be receptive to smart technology and want to live independently

*To tackle double-ageing we have to understand not only the present olds, but also the future olds.*

for longer, there is room to explore how we can integrate technology, innovation and design in both the public and private sectors to produce products, services, solutions and systems to improve the quality of life of our seniors to meet the challenges of an ageing population. Smart ageing technology and gerontechnology will be able to help those with physical and cognitive decline to support themselves and live independently for longer.

Other than being more technologically literate, our seniors are also becoming more willing and capable to participate in the decision-making process. The data collected from 9,785 questionnaires with the elderly and 739 focus group participants by The Jockey Club Age-friendly City Project<sup>5</sup> has helped to develop a solid, evidence-based baseline for the 18 districts to undertake continual improvements to promote an age-friendly city (Jcafc.hk, 2019b). More importantly, this is a major step to help Hong Kong move from “Smart Governance”, which is driven by data and evidence-based policy making, to what Pereira et al (2018) called a “Smart City Governance” model characterised by collaboration, citizen participation and data-based evidence policy making process to improve

the quality of life in cities through changes in the built environment. This is essential in creating momentum and developing innovative solutions to address double-ageing in Hong Kong.

Although there is no panacea to resolve the building stock ageing problem, planners can contribute to improving the quality of life and wellbeing of citizens by carefully considering the needs of our aging population in the urban renewal process, especially in terms of extending the years our seniors can remain independent and socially active in society. Moreover, scholars from different disciplines are also increasingly aware of the importance of open space in enhancing social interaction, promoting active ageing<sup>6</sup> and reducing mortality amongst our ageing population as part of the frailty prevention and management regime in Hong Kong (Yung et al, 2016; Wang et al, 2017). This provides a spatial dimension where we can tackle double-ageing from a self-care and wellbeing management angle.

In recognition that the elderly will require support and backup from the physical environment to compensate for functional and intrinsic capacity decline and biological changes associated with ageing over time (Lawton, 1986), embedding ageing-in-place ideals in the planning framework will work in synergy with existing strategies, such as healthy ageing<sup>7</sup>, active ageing and age-friendly city, to enhance the liveability of Hong Kong. This will also contribute towards future-proofing

---

<sup>5</sup> The Jockey Club Age-friendly City Project was developed with three clear objectives, namely:

1. Assess the age-friendliness of each district and build momentum in developing an age-friendly community;
2. Recommend a framework for districts to undertake continual improvement for the well-being of senior citizens; and
3. Arouse public awareness and encourage community participation in building an age-friendly city

Besides empowering older adults to champion age-friendly campaigns, the Jockey Club Age-friendly City Project has also funded a total of 84 district-based programmes, involving a total amount of funding of about \$16.2 million and more than 74,000 expected number of direct beneficiaries. The study highlights “quick wins” such as how to retrofit or develop maintenance regime for public space and facilities, such as uneven pavement surface and adding non-slip treatment, better lighting, barrier-free access and wayfinding.

<sup>6</sup> Active ageing is “the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age” (WHO, 2002).

<sup>7</sup> WHO defines Healthy Ageing as “the process of developing and maintaining the functional ability that enables well-being in older age” (WHO, 2015).

the city and making Hong Kong more resilient against the effects of “double ageing”. Habitat III<sup>8</sup>, WHO’s “Global Age-friendly Cities: A Guide”<sup>9</sup> and UN Sustainable Development Goals (SDGs)<sup>10</sup> together provide a useful, universal framework for community planning and social innovation.

DISI promulgates that an integrated approach of “double-smart”, namely “smart ageing” and “smart city”, be developed to facilitate the transition of the city and empower our ageing population to “age-in-place”. The ultimate goal is to sustain the self-care abilities of the elderly by applying different types of smart ageing and smart city technology to each layer of the elderly’s activity sphere. An age-friendly “double-smart” city is indeed an inclusive city, friendly to all ages.

Building on urban strategist Boyd Cohen’s smart city model (2015), which sets out smart living, environment, economy, mobility, governance and people as the six key aspects for city development, DISI believes that a user-centric smart city model should benefit all, including the elderly. Smart ageing-centered assistive technology and smart city principles should be adopted in “smart home” and spatially extends to “smart building” (smart living), “smart neighbourhood” and “smart community” (environment and economy). **Smart mobility** (mobility), which will increase elderly’s level of confidence and willingness to venture out and participate in the community, and **smart city governance** (people and governance) will be key in ensuring that the enhanced built environment and user-centric infrastructure are accessible and truly benefitting the elderly groups. This “double-smart” model will encourage the community to think wider and deeper about how they can assist older people in maintaining greater functional capacity, enjoy their independence and provide them with a choice to continue to contribute to society, should they want to. This collective

thinking and co-creation process will be a leap forward from an age-friendly city concept as it future-proofs our city for the benefits of everyone.

## Implementing “Double Smart” Solutions

As noted by Pereira et al (2018), the governance of a smart city is not focused on the use of technology and data within the government alone. Cities should aim to move beyond a technology and data-driven model, which he calls ‘Smart City 2.0’, to ‘Smart City 3.0’ where citizen participation and improving the quality of life of citizens is at the core of city governance framework. The “double-smart” model championed by DISI focuses strongly on co-creation, collaboration, governance and “software”, i.e. who is responsible for driving the changes and the tools to enable smart city governance to steer Hong Kong towards ‘Smart City 3.0’. Moreover, as actors can use different hardware and software approaches to drive changes under different spatial domains, this framework encourages adaptation depending on the local context and innovation through participatory design and community planning.

Below we will highlight how user-centric technology, innovation and smart city governance could help finesse/ scale up/ integrate existing studies/ guidelines/ initiatives/ strategies under a **humanistic, integrated double-smart framework** to combat double-ageing in Hong Kong. **Figure 2** presents a conceptual framework of the “Double Smart” approach, formulated by consolidating some key concepts to redefine smart city from an elderly-centric perspective.

### Smart Home

An “elderly-centric” smart city must start with their immediate living environment, i.e. their home.

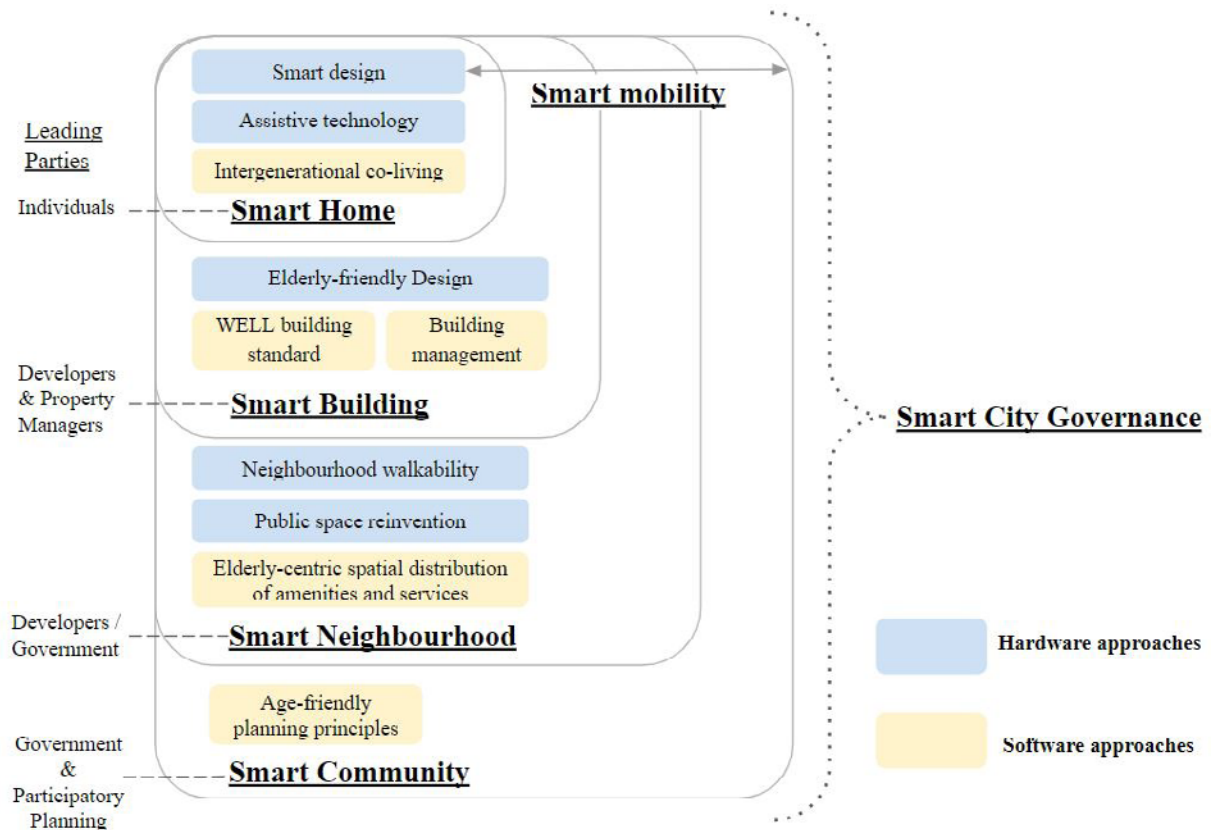
---

<sup>8</sup> United Nations Conference on Housing and Sustainable Urban Development, October 2016

<sup>9</sup> Published by the World Health Organisation (WHO) in 2007. The guide identified eight domains to promote active ageing, namely, outdoor spaces, transportation, housing, social participation, respect and social inclusion, civic participation and employment and communication and information

<sup>10</sup> Particularly relevant SDGs are: SDG 1 No Poverty, SDG 3 Good Health and Well-Being, SDG 8 Decent Work and Economic Growth, SDG 9 Industry, Innovation and Infrastructure, SDG 10 Reduced Inequalities, SDG 11 Sustainable Cities and Communities, SDG 16 Peace, Justice and Strong Institutions and SDG 17 Partnerships for Goals (United Nations, 2019).

## Conceptual Framework for Implementing “Double-smart” Approach



**Figure 2** Key concepts in re-defining smart city from the elderly-centric perspective

Smart home, which involves both smart design and assistive technology, is a rather well-developed smart solution to ageing in Hong Kong. HKHS's Ageing-in-Place Scheme<sup>11</sup>, Senior Citizen Home Safety Association's Smart Home for Seniors Pilot Scheme<sup>12</sup> and The Hong Kong Polytechnic University's Jockey Club Smart Ageing Hub<sup>13</sup> are key projects leading assistive technology and smart ageing designs in Hong Kong. Mechanical cabinets that can be lowered for elderlies in wheelchairs and automated pill dispenser are examples of smart design. Smart technology, which includes installation of remote sensing equipment on beds, floors and refrigerator for sleep monitoring, fall detection and nutrition monitoring respectively,

can help seniors to live more independently. These solutions are effective in enabling seniors live at home for longer and reducing the need for intensive care from helpers or other members of the family, and/ or long-term care services.

The integration of home modification/ adaptation to promote ageing-in-place is still not prevalent due to costs, stigma, and availability of information. In most cases, individuals will be the leading force in deciding and installing assistive technology based on needs, financial constraints and physical conditions of the elderly residents. It is worthwhile to step up the subsidies and implementation of

<sup>11</sup> HKHS's Ageing-in-Place scheme rides on the trusting relationship and nearby location of estate-based social workers to proactively reach out to the needy elderly residents and line-up timely, accessible, affordable and appropriate services for them. (<https://www.hkhs.com/en/our-business/elderly-housing/ageing-in-place>)

<sup>12</sup> Senior Citizen Home Safety Association's Smart Home for Seniors Pilot Programme provides 1-year free trial of smart home technology for 1000 seniors aged 50 or above. ([https://www.schsa.org.hk/en/services/smart\\_home/index.html](https://www.schsa.org.hk/en/services/smart_home/index.html))

<sup>13</sup> The Smart Ageing Hub at the Polytechnic University of Hong Kong showcases new technology and assistive equipment to enable elderlies to avoid injury and live independently, such as key chain with tracker for dementia patients and AI medical assessments. (<https://www.polyu.edu.hk/Ageing/en/ourprojects.php>)

such effective solutions to promote ageing-in-place.

HKHS has been helping their elderly residents with living space upgrades and has been successful in helping their elderly residents to age-in-place. This model may be scaled-up for elderly singletons and doubletons living in Public Rental Housing to help with their daily living, especially in terms of hazard management and fall detection to reduce injury and hospitalisation. This should include subsidised or free installation of handrails in bathrooms, upgrade of stove and washing basin with infra-red/remote sensor to remind the elderly to switch off the appliances and activity-triggered night lights to help elderly to get out of bed/ go to bathroom at night. These elderly-friendly smart design and technologies are mature and rather inexpensive. Their benefits to the seniors are huge, especially in terms of enhancing their wellbeing and quality of life, without intruding their privacy.

Besides hardware, it is also important to explore software approaches to improve the quality of life and wellbeing of our seniors, especially in face of loneliness.

Intergenerational co-living is one such way that could rebuild the neighbourhood support network of the elderly and increase their sense of self-worth and confidence. This “smart living” arrangement does not need to be confined to families, encouraging the elderly living in isolation to reside with university students also helps the development of social capital to support the community and improve the sense of self-worth and belonging of the elderly.

This alternative housing model has proven benefits on the wellbeing of residents of all ages in foreign countries (Garland, 2018). Spain is one of the countries where intergenerational co-living is actively promoted, and, indeed, prescribed as a medical intervention to combat elderly loneliness, anxiety and depression. Students are encouraged to reside with and care for their elderly housemates as a service to secure free

accommodation. This socially innovative way to combating loneliness does not only help the elderly living in isolation, improve their wellbeing and reduce the risk of premature death associated with delayed medical intervention, it is also effective in helping young people who struggle to get on the housing ladder to secure affordable accommodation. In Hong Kong, households close to universities have potential to experiment with this model, especially exchange students that are keen to know more about the local culture and language.

### Smart Building

The Elderly-friendly Design Guidelines (2019) recently published by Architectural Services Department (ArchSD) provides some key overarching principles to design elderly-friendly buildings and public spaces. Simple design inventions such as logical floor layout, non-glare windows and sensible choice of materials and finishes to prevent fall and confusion have been highlighted in the document. The document also emphasises the importance of building in socialising spaces and a variety of spaces within a building complex to promote social interaction and resting. This forms the basis for promoting smart mobility within buildings – and with the external environment – to promote an active lifestyle and facilitate social interaction for all age groups, especially the elderly.

The URA and HKHS have led the way in designing buildings with future users in mind by incorporating Smart Living concepts in the construction of new buildings<sup>14</sup> and installing emergency alarms in bathrooms. In particular, HKHS’s trail to install seats and handrails in elevators to encourage the elderly to go out should be adopted as a standard practice in all new buildings to benefit people of all age groups. The low cost intervention will increase the elderly’s willingness and confidence to venture out of their home and encourage physical activity and social participation (Image 2).

<sup>14</sup> URA advocates the smart concept in the design, environment, information, management and convenience aspects in order to create a smart living. URA’s Smart Living buildings focuses on home energy and water consumption system, home health and wellness system, smart display, home waste management system, building information modelling, and building management system (URA, 2019)



**Image 2** Elevators with seats and handrail  
(Source: HKHS, 2019)

Moreover, smart living should not stop at improving user experience and meeting residents' needs. DISI believes that smart living should empower our seniors to live independently and, at the same time, extend the service life of the entire building. WELL building standard originated in the US can be adapted to help champion elderly-friendly smart buildings in Hong Kong (see Image 3).

WELL building standard offers a framework for optimising building design and operations for more effective estate management. It also focuses on improving human health and well-being, which is particularly effective in promoting and

enabling ageing-in-place as it is built upon seven key concepts for healthy building for residents, including air, water, light, nourishment, fitness, comfort and mind (see example in Image 4). For instance, if internal air, water, light and comfort are monitored and can be remotely adjusted by their loved ones according to the needs the elderly, the weather and their physical condition, this may reduce the need for their relatives to visit them throughout the day for temporal control. This will be particularly effective in extreme weather conditions, especially for elderly who want to save costs, or those that have geriatric syndromes and dementia and cannot sense the temperature difference easily.

Without a doubt there is a heavy reliance on developers and property managers to initiate and drive elderly-friendly design and smart-ageing enabled smart buildings. A localised version of the WELL building standard integrating concepts highlighted in the ArchSD's Elderly-friendly Design Guide could be further developed to promote elderly-friendly smart buildings and combat double-ageing in the city.

Moreover, the role of caretakers and housing



### AIR

- Quality
- Purification
- Humidity



### WATER

- Quality
- Treatment
- Drinking Promotion



### LIGHT

- Natural Access
- Color
- Dimming/Circadian Rhythms



### NOURISHMENT

- Selection/Availability
- Serving Size
- Information



### FITNESS

- Fitness Centers
- Stairs
- Bike Room
- Incentives Programs



### COMFORT

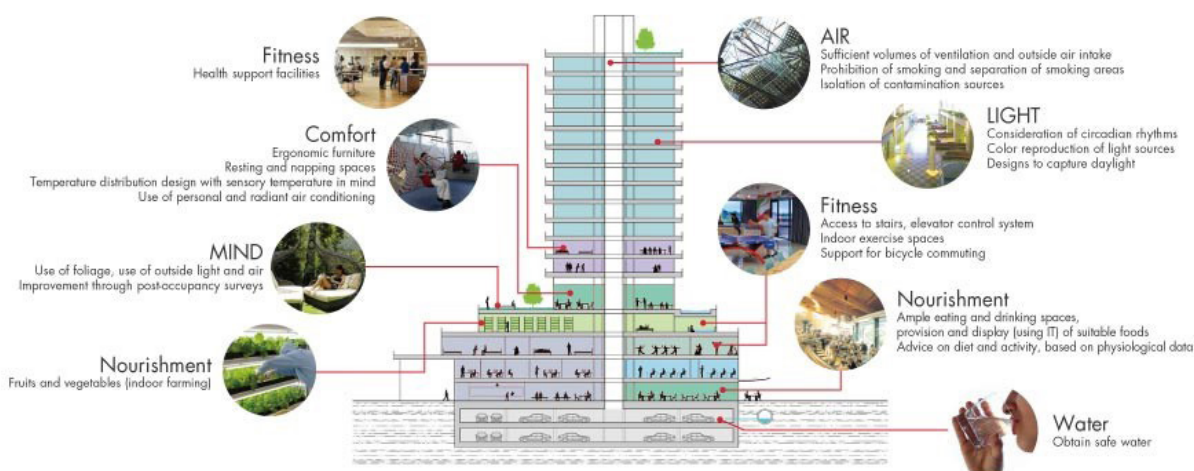
- Ergonomics
- Sound Reduction
- Olfactory Comfort



### MIND

- Collaboration
- Quiet Rooms
- On-site Child Care
- Health & Wellness Library

**Image 3** Seven concepts for healthy buildings – WELL standard (source: Air Equipment Company, 2019)



**Image 4** Descriptions of WELL building standard (Source: Nikken Sekkei)

managers can be strengthened as part of the software approach to support the WELL concept, especially about the mind, fitness and comfort attributes. A study led by Professor Rebecca Chiu shows high level of trust towards housing managers among residents of large housing estates (The Hong Kong Institute of Housing, 2018). Indeed, many elderlies do rely on building security guards whenever they need immediate help since their assistance is often the most timely and accessible, such as requesting help for electric works and running errands. The HKHS Ageing-in-Place Scheme experimented with the service of estate-based social workers, which demonstrates how housing management service can extend beyond estate management and play a significant part in meeting the daily needs of elderlies. As elderlies and caretakers have often built a close relationship with each other, with more professional training for building managers, they can become a reliable resource of support for the elderly in promoting ageing-in-place. This smart city governance ecosystem will also alleviate the community's heavy reliance on social services and volunteers to look after the frail but otherwise relatively healthy elderly groups.

### Smart Neighbourhood

The term 'neighbourhood' lacks a universal definition. For elderlies this may be determined by the physical distance they can overcome by walking from home to nearby destinations where amenities and services they need. The neighbourhood perceived by elderlies usually

covers a smaller spatial area due to their diminishing walking capability (Bödeker, 2018). This implies the importance of elderly-centric design in neighbourhood planning to maintain their social interaction with the community. Elderly-centred smart neighbourhood will also give the elderly a sense of autonomy and independence to carry out their desired activities without the help of others.

Public space reinvention and revitalisation is important in creating smart neighbourhoods. According to the estimate by Planning Department, about 90% of our population lives within 400 meters from a park (PlanD, 2016). While accessibility, convenience and safety are considered basic principles of designing public spaces, encouraging and facilitating social participation should be a key design criteria to promote social inclusion, intergenerational interactions and enjoyment.

From a strategic planning point of view, outdoor space is more important than ever in mitigating the effects of double-ageing. There is also a need to revitalise public spaces in old urban areas where social infrastructure are scarce and under pressure. Private individual buildings in old urban cores tend not to have common recreational space of their own, occupants are highly reliant on local and district level parks for their leisure and recreation needs. Moreover, residents in old urban areas tend to be seniors and they are dependent on public spaces for their social and recreation activities and exercises. With limited



scope to increase open space provision, there is a need to improve access to and the quality of the open space to increase public enjoyment of park facilities. Co-management, as a smart city governance approach, is also essential in ensuring that the open space is well-managed, accessible, clean and conflict-free to increase people's enjoyment and utilisation of the space.

In an attempt to reimagine and reinvent open space in Hong Kong, combat the effects of double-ageing and promote ageing-in-place to enhance the age-friendliness of the city, JCDISI partnered with ArchSD, HKHS and Leisure and Cultural Services Department to explore reinventing two open space sites in Kowloon Park and Prosperous Garden to leverage the physical, mental and psychological benefits of intergenerational play. JCDISI will further explore integrating smart technologies and clinical requirements into outdoor play equipment to achieve rehabilitation through exercise and interactive play. It is hoped that the redesigned parks and the new play equipment would together boost physical activity of elderlies and stimulate sensory integration children, achieving the purpose of self-care, wellbeing management and health monitoring in a smart neighbourhood. This user-centric, inclusive play space design concept would encourage "creative play", promote social cohesion and support ageing-in-place, including for those that have more serious geriatric syndromes and chronic diseases.

Nonetheless, creating a walkable environment

is crucial in helping elderlies to stay physically active and support their participation in society, whether it is in the form of leisure, recreation, civic participation or sustaining their employment. The Walkability Study commissioned by the Transport Department – with heavy input from the Planning Department – to look at ways to improve the walkability and connectivity of the urban core is an excellent smart city governance model to develop smart mobility solutions for the city. It is essential for the government to explore a strategic mechanism to deliver more "quick wins" to accelerate enhancing the walkability of the city, especially in reducing street clutter, improving pedestrian safety and wayfinding at the neighbourhood level to increase elderly mobility.

At the moment the barrier-free access walkways programme only covers public walkways managed by the Highways Department (see Table 2). The successful implementation of the programme implies the possibility to expand the scope to walkways managed by other departments or parties<sup>15</sup> to enhance vertical circulation within housing estates, and their connectivity with the wider neighbourhood. This would be particularly beneficial to the elderly residing in ageing housing estates to improve their social connectedness with the community and reduce isolation.

Smart technology can play a part in addressing mobility issues of elderly in the neighbourhood. GPS-fitted insoles and app such as SmartSoles allow carers to send a message to the carer's smartphone as soon as the person with dementia

Progress as at 31 December 2018	Original Programme	Expanded Programme	Second Phase	Sum of all Phases
Total no. of items	145	57	47	249
Completed	91	14	0	105
Under construction	45	41	0	86
Formulating design schemes and implementation programmes	9	2	47	58

**Table 2** Progress of Retrofitting of Barrier-free Access Facilities for Grade-separated Walkways

Sources: Highways Department, 2018

<sup>15</sup> such as Home Ownership Schemes estates and Tenants Purchase Scheme estates under the Hong Kong Housing Authority and Housing Department

walks beyond a defined area, such as a care home or a garden (Plimmer, 2019). This would help carers to feel more comfortable allowing the demented elder to wander and enjoy a sense of freedom, knowing that they will be able to find them and help them return home. However, it has to be admitted that there are ethical controversies and concerns within the society on the use of GPS for people with dementia. This underlines the need for clearer policies and practical guidelines for smoother implementation of these technologies.

### Smart Community

A community usually considers a larger geographical area than neighbourhood. Urban integration will be key in coordinating, balancing and managing public spaces, public services and smart mobility to support and connect different smart neighbourhoods into networked smart communities. A networked smart community will increase elderlies' willingness to travel

*A networked smart community will increase elderlies' willingness to travel beyond their neighbourhood, enhance their civic participation, maintain their independence and, should they want to, continue to work, realising the ideals of an age-friendly city.*

beyond their neighbourhood, enhance their civic participation, maintain their independence and, should they want to, continue to work, realising the ideals of an age-friendly city.

A much longer planning horizon is needed to form effective plans for community revitalisation/upgrades projects, smart city governance through community planning is essential. JCDISI advocates the need to develop a bottom-up, age-friendly chapter in the Hong Kong Planning Standards and Guidelines to flesh out some guiding principles to steer the development of age-friendly smart communities. The adaptation of the "Five-in-One City Green Space"<sup>16</sup> concept now used for new town developments and new ways to secure provision of community facilities to create a more vibrant and supportive neighbourhood<sup>17</sup> are some concepts that would be included in the scope of study to tackle double-ageing in the urban core and promote ageing-in-place in Hong Kong.

Although the approaches suggested above would require major changes in policies and holistic inter-departmental coordination in the masterplanning stage, the long-term benefits of this integrated planning approach will be significant. This will also help safeguard spaces within the community to enable long term social service planning. This approach will not only create a more vibrant and supportive neighbourhood, it may also generate employment and volunteer activities for senior residents, further promoting civic participation within the community and enabling ageing-in-place.

<sup>16</sup> Ling, 2017. Unpublished presentation to the Council of Asian Shopping Centres (CASC) Conference 2017, October 2017, Hong Kong. The "Five-in-One City Green Space Framework" will perform functions of (1) an unobstructed pedestrian thoroughfare, (2) a part of the open space system, (3) shopping streets, (4) an air ventilation path and (5) a visual corridor. Centrally located public piazza within this framework will become part of the daily walking experience of the residents. The open space network master-planned in the Outline Development Plan for New Development Areas in Kwun Tong North, Fanling North and Tung Chung East are typical examples achieving seamless integration of the five functions. The key to delivering a successful "Five-in-One City Green Space" is the interconnectedness of both public and privately-owned public open space. In connection with the transit-oriented development model, this network of public space could become the centrepiece of socio-economic activities and vastly improve connectivity in the neighbourhood level.

<sup>17</sup> Ling, 2019. Ling advocates allowing a maximum of 5% GFA exemption in all public housing projects for community facilities provision. This policy would benefit the community in four ways: (1) ensure steady increase in provision of community facilities with the construction of public housing estates, (2) adequate public transport services and public open space are available within public housing estates, (3) NIMBY effect could be minimised as the provision of community facilities is planned ahead of time, and (4) create employment opportunities for elderly residents in public housing.

## Conclusion

It is time to recognise double-ageing as the focal issue in the planning and policy-making agenda, and combine existing, fragmented measures into a holistic strategic framework for the long-term battle ahead.

Ageing is not a new phenomenon of mankind, but longevity is. Cities emerged to perform their primary economic and defence functions were never built for the elderly population. Perhaps it is now the first time in human history that our cities need to accommodate such a high proportion of aged people. Internationally, The UN Habitat III Conference's New Urban Agenda (2017) called for a paradigm shift -- rather than viewing ageing from a negative perspective, we should harness it as an opportunity to enhance the quality of life of the urban population<sup>18</sup>.

“Ageing Tsunami” and “Silver Tsunami” are the terms coined to describe the unprecedented ageing trend in human society, particularly in cities of the developed economies like Hong Kong. Whilst the impactful force of ageing is an unprecedented challenge, it should not be described as a “tsunami”.

Tsunami is hard to predict and leaves us little response time to escape for survival; but the trend of ageing is highly predicable and thus provides us with sufficient response time to make adjustment and adaptation.

Tsunami-prone regions construct seawalls strong and tall enough hopefully to keep tsunamic swashes outside of human settlements; but for ageing we can only embrace its impact and live with it.

Tsunami causes destruction; but smart decisions and actions to tackle ageing can make our cities more liveable.

Tsunami, like other natural disasters, in ancient fables and myths were often regarded as

punishment to mankind; but ageing and longevity are blissful results of successes in maintaining public security, flourishing economy, enhancing nutrition, providing decent accommodation, improving public hygiene and health services.

The double-ageing phenomenon in Hong Kong is unique in the world in terms of its scale and complexity. The combined effect of double-ageing is one of the most difficult challenges that Hong Kong must overcome. Hong Kong as an “urban laboratory” provides unique opportunities for world-class urban research and “double-smart” solutions.

None of the ideas set out above are, admittedly, particularly ground-breaking. The “double-smart” approach is not a panacea for such a complex problem, but rather an advocacy for citywide contribution in co-creating smart solutions for the double-ageing challenge ahead.

*The role of planners has never been more critical.*

The role of planners has never been more critical. To ensure that changes are made systematically and different government departments are heading towards the same direction, planners will have to take the lead in refining current planning standards and formulating a much-needed strategic plan to promote the paradigm shift towards addressing double-ageing and developing “double smart” initiatives. Being visionary and proactive in leveraging cross-sector, cross-disciplinary knowledge and resources and going an extra mile with innovative thinking and coordination will be key in sustaining that effort.

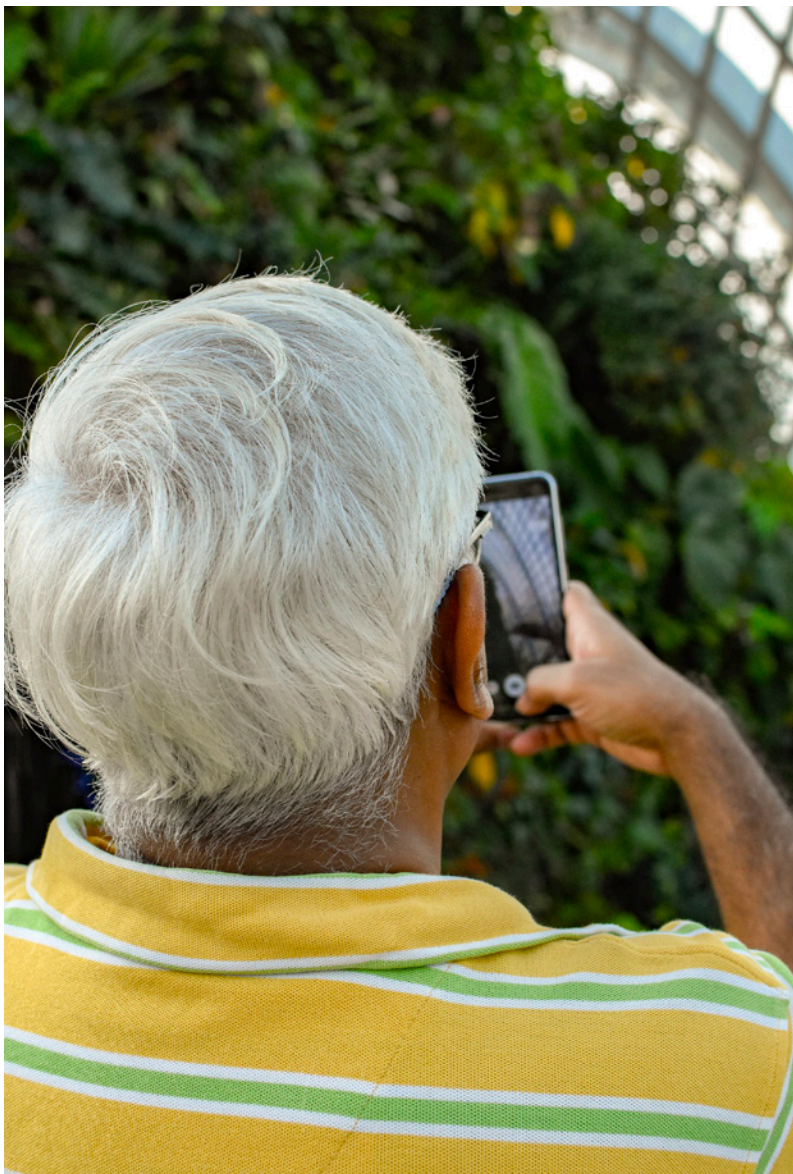
Let us be proactive and creative in tackling double-ageing by integrating technology and our planning knowledge and skills to future-proof Hong Kong and increase the resilience of the city.

---

<sup>18</sup>The New Urban Agenda called for “addressing the social, economic and spatial implications of ageing populations, where applicable, and harnessing the ageing factor as an opportunity for new decent jobs and sustained, inclusive and sustainable economic growth, while improving the quality of life of the urban population” (United Nations, 2017).

## Acknowledgement

The authors would like to thank Ms. Destiny Mui for her instrumental efforts in carrying out desktop research and drafting which has enabled the completion of this article.



## References

- Architectural Services Department. (2019), *Elderly-friendly Design Guidelines*.
- Bastillepost. (2018), “韋志成研市建為舊樓「鬆綁」爭取擴大油旺地積比率”. Available at: <https://www.bastillepost.com/hongkong/article/3192273-%E9%9F%8B%E5%BF%97%E6%88%90%E7%A0%94%E5%B8%82%E5%BB%BA%E7%82%BA%E8%88%8A%E6%A8%93%E3%80%8C%E9%AC%86%E7%B6%81%E3%80%8D-%E7%88%AD%E5%8F%96%E6%93%B4%E5%A4%A7%E6%B2%B9%E6%97%BA%E5%9C%B0%E7%A9%8D%E6%AF%94>
- Bödeker, M. (2018), *Walking and Walkability in Pre-Set and Self-Defined Neighborhoods: A Mental Mapping Study in Older Adults*.
- Census and Statistics Department. (2017), *Hong Kong Population Projections 2017-2066*. Available at: <https://www.statistics.gov.hk/pub/B1I20015072017XXXXB0100.pdf>
- Census and Statistics Department. (2018), *2016 Population By-census Thematic Report: Older Persons*. Available at: [https://www.bycensus2016.gov.hk/data/16BC\\_Older\\_persons\\_report.pdf](https://www.bycensus2016.gov.hk/data/16BC_Older_persons_report.pdf)
- Civic Exchange. (2018), *Open Space Opinion Survey*. Available at: <https://civic-exchange.org/wp-content/uploads/2018/10/Civic-Exchange-Open-Space-Opinion-Survey-FULL-REPORT-updated20181128.pdf>
- Cohen, B. (2015), *The 3 Generations of Smart Cities*, Available at: <https://www.fastcompany.com/3047795/the-3-generations-of-smart-cities>
- Devb. (2017), *Operation Building Bright 2.0*. Available at: [https://www.devb.gov.hk/en/home/my\\_blog/index\\_id\\_253.html](https://www.devb.gov.hk/en/home/my_blog/index_id_253.html)
- Development Bureau. (2017), *Legislative Council: Panel on Development: “Operation Building Bright 2.0”*, LC Paper No. CB(1)343/17-18(04). Available at: <https://www.legco.gov.hk/yr17-18/english/panels/dev/papers/dev20171220cb1-343-4-e.pdf>
- Development Bureau, Civil Engineering and Development Department and Planning Department. (2019), *Legislative Council: Panel on Development: “Studies related to Artificial Islands in the Central Waters, Lantau Conservation Fund and Work Progress of the Sustainable Lantau Office”*, LC Paper No. CB(1)729/18-19(03). Available at: <https://www.legco.gov.hk/yr18-19/english/panels/dev/papers/dev20190326cb1-729-3-e.pdf>
- Elderly Commission (2017), *Elderly Services Programme Plan*, Available at: [https://www.elderlycommission.gov.hk/en/download/library/ESPP\\_Final\\_Report\\_Eng.pdf](https://www.elderlycommission.gov.hk/en/download/library/ESPP_Final_Report_Eng.pdf)
- Garland, E. (2018), *Learning from Intergenerational Housing Projects in the USA*. Available at: <https://www.wcmt.org.uk/sites/default/files/report-documents/Garland%20E%20Report%202017%20Final.pdf>
- Hong Kong Green Building Council. (2016), *BEAM Plus Neighbourhood Version 1.0*. Available at: [https://www.beamsociety.org.hk/files/BEAM-Plus-ND-Draft-Manual-V1.0\\_16112016.pdf](https://www.beamsociety.org.hk/files/BEAM-Plus-ND-Draft-Manual-V1.0_16112016.pdf)
- Highways Department. (2018), *Legislative Council Panel on Transport: “Universal Accessibility” Programme*, LC Paper No. CB(4)179/18-19(03). Available at: <https://www.legco.gov.hk/yr18-19/english/panels/tp/papers/tp20181116cb4-179-3-e.pdf>
- Info.gov. (2016), *LCQ21: Promoting active ageing for the elderly*. Available at: <https://www.info.gov.hk/gia/general/201606/29/P201606290651.htm>
- Jcafc.hk. (2019a), *WHO Global Network of Age-friendly Cities and Communities*. Available at: <https://www.jcafc.hk/en/afc-concept/who-global-network>
- Jcafc.hk. (2019b), *Project Progress: Baseline Assessment*. Available at: <https://www.jcafc.hk/en/project-progress/baseline-assessment>
- Lawton, M. P. (1986), *Environment and ageing*. In *Classics in Ageing Reprinted Series I (Vol 1)*, New York, Centre for Study of Ageing.
- Pereira, Gabriela & Parycek, Peter & Falco, Enzo & Kleinhans, Reinout. (2018), *Smart governance in the context of smart cities: A literature review*. Available at: [https://www.researchgate.net/publication/325304603\\_Smart\\_governance\\_in\\_the\\_context\\_of\\_smart\\_cities\\_A\\_literature\\_review](https://www.researchgate.net/publication/325304603_Smart_governance_in_the_context_of_smart_cities_A_literature_review)
- Planning Department. (2016), “Baseline Review: Population, Housing, Economy and Spatial Development Pattern”, *Hong Kong 2030+: Towards A Planning Vision and Strategy Transcending 2030*, p. 26. Available at: [https://www.hk2030plus.hk/document/Baseline%20Review%20-%20Population\\_Housing\\_Economy%20and%20Spatial%20Development%20Pattern\\_Eng.pdf](https://www.hk2030plus.hk/document/Baseline%20Review%20-%20Population_Housing_Economy%20and%20Spatial%20Development%20Pattern_Eng.pdf)
- Plimmer, G. (2019) *Trackers help people with dementia stay at home for longer*. Available at <https://www.ft.com/content/a7172548-71ae-11e9-bf5c-6eeb837566c5>

Shelton, B, Karakiewicz, J and Kvan, T (2011) “The Making of Hong Kong: From Vertical to Volumetric”, Routledge, New York

The Hong Kong Institute of Housing. (2018), *Livability of Large Housing Estates in Hong Kong: Contribution of the Housing Management Profession*.

Transport and Housing Bureau. (2016), *Long Term Housing Strategy: Annual Progress Report 2016*, LC Paper No. CB(1)350/16-17(01), p. 15. Available at: <https://www.legco.gov.hk/yr16-17/english/panels/hg/papers/hg20170109cb1-350-1-e.pdf>

United Nations. (2017), *New Urban Agenda*, p. 18. Available at: <http://habitat3.org/wp-content/uploads/NUA-English.pdf>

United Nations. (2019), *About the Sustainable Development Goals*. Available at: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

URA. (2017), “油旺地區研究：是難題、是承擔，也是機遇”. Available at: [https://www.ura.org.hk/tc/media/blog/blog\\_20171126](https://www.ura.org.hk/tc/media/blog/blog_20171126)

URA. (2018), “Managing Director’s Statement”, *Annual Report 17-18*. Available at: <https://www.ura.org.hk/f/publication/3042/%28MD%29%20URA%20annual%20report%2017-18%20English%20%28hi-res%29.pdf>

URA. (2019), “沉香揚芳馥 舊區建融和”. Available at: [https://www.ura.org.hk/en/media/blog/blog\\_20190616](https://www.ura.org.hk/en/media/blog/blog_20190616)

Wang D, Lau KK, Yu R, et al (2017), Neighbouring green space and mortality in community-dwelling elderly Hong Kong Chinese: a cohort study  
BMJ Open 2017;7:e015794. doi: 10.1136/bmjopen-2016-015794

WHO. (2002), *Active Ageing: A Policy Framework*, p. 12. Available at: [https://apps.who.int/iris/bitstream/handle/10665/67215/WHO\\_NMH\\_NPH\\_02.8.pdf;jsessionid=A251E06C21AFD8466388682ED3DD7B-D7?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/67215/WHO_NMH_NPH_02.8.pdf;jsessionid=A251E06C21AFD8466388682ED3DD7B-D7?sequence=1)

WHO. (2007), *Global Age-friendly Cities: A Guide*, p. 1. Available at: [https://www.who.int/ageing/publications/Global\\_age\\_friendly\\_cities\\_Guide\\_English.pdf](https://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf)

WHO. (2015), *World Report on Ageing and Health*, p. 28. Available at: [https://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811\\_eng.pdf?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811_eng.pdf?sequence=1)

# 華懋集團

## Chinachem Group

立足香港 胸懷祖國 放眼世界



## Feature Paper

# Macao: Ageing Population and Ageing Buildings

**Kamienna Wong, Peter Lam and Roger Chan**

*K Wong, P Lam and R Chan are members of the Macao Urban Planning Institute. Views expressed in this article are those of the authors. The usual disclaimer applies.*

According to the World Health Organization, the world's ageing population is expected to continue to rise in the next few decades, due mainly to falling fertility rates and increase in life expectancy. It is estimated that the number of people aged 65 and above will grow from 524 million in 2010 to nearly 1.5 billion by 2050 with the biggest increase being in developing countries<sup>1</sup>. Over the past two decades, alongside with exponential economic growth, Macao has also witnessed an upward trend in her ageing population, with an increase from 7.5% to 10.55% in the age group of 65 and

above. The growth of Macao's ageing population has been at a relatively moderate rate due in part to the influx of young working population to cater for the flourishing tourism industry.

Common with other cities in the world, the phenomenon of ageing population has presented considerable challenges to Macao. They include the demands on social welfare and public health support as well as related manpower and infrastructural facilities<sup>2</sup>. The ageing population also gives rise to shortage of labour. As of 2018,

**Table 1** Population of Macao (1997 to 2017)

Year	Total Population (in thousand)	Population Aged 65 or above (in thousand)	% of Population Aged 65 or above	Population Growth
1997	422.0	31.7	7.51%	--
1998	430.5	32.6	7.57%	2.01%
1999	437.5	33.7	7.70%	1.63%
2000	431.5	30.5	7.06%	-1.37%
2001	436.7	32.2	7.37%	1.21%
2002	441.6	33.9	7.68%	1.12%
2003	446.7	33.5	7.50%	1.15%
2004	462.6	34.4	7.44%	3.56%
2005	488.1	40.4	8.28%	5.51%
2006	509.9	35.7	7.00%	4.47%
2007	531.8	36.3	6.83%	4.29%
2008	549.2	39.5	7.19%	3.27%
2009	533.3	38.7	7.26%	-2.90%
2010	540.6	39.9	7.38%	1.37%
2011	557.4	40.9	7.34%	3.11%
2012	582.0	44.6	7.66%	4.41%
2013	607.5	48.7	8.02%	4.38%
2014	636.2	53.6	8.43%	4.72%
2015	646.8	58.1	8.98%	1.67%
2016	644.9	63.4	9.83%	-0.29%
2017	653.1	68.9	10.55%	1.27%

Source: The Statistics and Census Service<sup>3</sup>

<sup>1</sup> World Health Organization (2011), Global Health and Ageing [https://www.who.int/ageing/publications/global\\_health.pdf](https://www.who.int/ageing/publications/global_health.pdf) (last accessed on 20 April 2019)

<sup>2</sup> The Statistics and Census Service (2014), Trends and Challenges of Ageing Population (人口老化的趨勢與挑戰) <https://www.dsec.gov.mo/getAttachment/f5ecdbb4-ad4e-47fb-9937-98850909b844/pdf1.aspx?disposition=attachment> (last accessed on 20 April 2019)

<sup>3</sup> <https://www.dsec.gov.mo/Statistic.aspx?NodeGuid=7bb8808e-8fd3-4d6b-904a-34fe4b302883> (last accessed on 20 April 2019)



Macao had imported about 188,480 overseas employees<sup>4</sup> to fill the vacancies in different industries, especially the tourism industry. In addition, with expected increase in spending on social welfare, healthcare and support for the elderly citizen, public expenditure will also come under pressure.

As one of the cities with the highest GDP per capita, considerable resources have been devoted to the elderly population in the city. The Social Welfare Bureau and the Social Security Fund are the major government institutions involved in the provision of welfare support and implementation of policies and measures for the elderly. On top of this, the Annual Policy Address usually also make provisions for various support to the senior citizens, such as direct cash payment. Further, there is increasing emphasis on improving the quality of living, the social network and the connectivity of the elderly population through, for instance, continuing education, interest classes and other activities.

The Division for Elderly Service under the Social Welfare Bureau is tasked with the responsibility of providing and overseeing the services for the elderly. It also collaborates with non-governmental organizations (NGOs) and other governmental institutions to provide community support and residential care to the elderly in need. At the same time, it also renders technical and resource support to the NGOs and other social service providers. The services offered by the Division include the Multi-Center Service for the Elderly, referral service for day care and residential home and the Senior Citizen Card program. Through social, educational and recreational activities, the Multi-Center Service for Elderly provides a forum for interaction and socializing for the elderly, ensuring, too, that they can lead an active and positive lifestyle. The Senior Citizen Card program allows the elderly to enjoy discounts on public transport and selected shops, which is important in maintaining the mobility and connectivity of the elderly.

In terms of financial subsidies, the Social Security Fund serves as the implementation arm of the

Macao Special Administrative Region (MSAR) Government in the provision of financial aids and benefits that include Medical Voucher, Old Age Pension, Central Provident Fund and annual subsidy for senior citizens. According to the Policy Address 2019, citizens aged 65 and above may receive up to MOP73,790 in the year (MOP6,149 per month) (see **Table 2** below). However, it should be noted that the amount of subsidy varies from year to year. In the past two decades, with economic success brought about by the booming gaming and tourism sectors, the level of subsidy for the elderly has been raised continuously while the inflation rate has also been rising rapidly.

**Table 2** Different types and the annual amount of subsidy to senior citizen in Macao

Types of subsidy	Annual amount (MOP)
Medical Voucher	600
Old Age Pension	3,630 x 13 months
Central Provident Fund	7,000
Subsidy for Senior Citizen	9,000
Cash Sharing Scheme	10,000
<b>Total</b>	<b>73,790</b>

Source: Policy Address 2019<sup>5</sup>

To address the demand for more and better public medical and healthcare services, the MSAR Government initiated the Macao Hospital Hub in 2014, the construction of which is underway. The planned complex comprises a cluster of buildings that feature a hospital with over 1,000 beds, a laboratory building, a rehabilitation building, a nursing school, and other supporting facilities. It is expected that the project upon completion will help to relieve the pressure of existing medical facilities. Furthermore, for the first time, there will be a set of urban planning and design guidelines for the Disabled and Elderly.

In addition to measures to meet the basic needs of the elderly, emphasis has also been put on enhancing social support of the elderly and their quality of life. The Elderly College run by the Macao Polytechnic Institute provides a venue

<sup>4</sup> [https://www.dsal.gov.mo/download/pdf\\_en/statistic/nrworker/AI/AI\\_2018\\_12.pdf](https://www.dsal.gov.mo/download/pdf_en/statistic/nrworker/AI/AI_2018_12.pdf) (last accessed on 20 April 2019)

<sup>5</sup> <https://www.policyaddress.gov.mo/policy/home.php?lang=en> (last accessed on 20 April 2019)

for the elderly to obtain practical knowledge related to their daily lives. The College offers multi-disciplinary classes on computer science, languages, technology, arts, health sciences, and so on. The four-year program not only allows the elderly to keep abreast of the latest technological and social changes, but also offers a social network while enabling them to be gainfully engaged and keep in touch with the society. Apart from the College, NGOs also organised different interest classes and courses to foster a more engaging lifestyle for the senior citizens.

While indisputably the MSAR Government has been making efforts to meet and plan for the needs of the ageing population, there are still areas where more devotion of attention is needed. For instance, there have been calls for expansion of the public healthcare budget to provide community healthcare and support for the elderly in public housing estates. Better and professional management of the social support services offered by the NGOs as well as improvement to the provident fund schemes and retirement benefits for non-civil servants are also areas of concern<sup>6</sup>. A further area requiring attention is the built environment of the city. Considerations will have to be given to improving the road design and providing more public space, especially in the old districts, so as to cater for the needs of the ageing population at large.

### Ageing buildings in Macao

Similar to the population in the city, buildings in Macao also suffer from the problem of ageing. This is particularly the case in the old districts. Official information in this area is, however, limited, with data available from only two of the government departments. The Cartography and Cadastre Bureau publishes statistics on residential, commercial and industrial buildings aged 30 years or above; while the Statistics and Census Service maintains two types of data about buildings, namely, buildings issued with licence for occupation (i.e. upon completion of the building), and buildings for which construction permits have been issued (i.e. for construction of new buildings). Other than the above, no other data

that may shed light on the issue of ageing buildings is available to the public.

From the statistics published by the Cartography and Cadastre Bureau (see Table 3), the number of residential, commercial and industrial buildings aged 30 years or above has been on the increase in the past two decades. As shown in Table 3, the number of these buildings in 2008 was 3,403 and it soared to 4,635 in 2017, representing an average annual growth rate of 3.5%.

**Table 3** Number of buildings aged 30 years or above in Macao (2008-2017)

Year	Number of buildings aged 30 years or above	Annual Growth Rate(%)
2008	3,403	
2009	3,540	4.03%
2010	3,607	1.89%
2011	3,799	5.32%
2012	3,970	4.50%
2013	4,085	2.90%
2014	4,211	3.08%
2015	4,332	2.87%
2016	4,472	3.23%
2017	4,635	3.64%

Source: The Cartography and Cadastre Bureau of MSAR Government, 2018<sup>7</sup>

Evidently, an ageing trend is taking shape amongst the buildings in Macao with a steady increase in the number of buildings aged 30 years or above. Meanwhile, it would appear from the statistics on the buildings issued with licence for occupation that the increase in the number of buildings aged 30 years or above will peak in 2019, and it may continue to reduce in the years after that.

The data from the Statistics and Census Service of Macao shows the number of new buildings issued with the licence for occupation peaked in 1989, after which there was a gradual downward trend. Table 4 and Figure 1 show the trend between 1980 and 2017.

<sup>6</sup> <https://macaudailytimes.com.mo/macau-matters-caring-for-the-elderly-i.html>; and <https://macaudailytimes.com.mo/macau-matters-caring-for-the-elderly-ii.html> (last accessed on 20 April 2019)

<sup>7</sup> [https://www.dscc.gov.mo/ENG/knowledge/geo\\_statistic.html](https://www.dscc.gov.mo/ENG/knowledge/geo_statistic.html) (last accessed on 20 April 2019)

**Table 4** Number of buildings issued with licence for occupation (1980-2017)

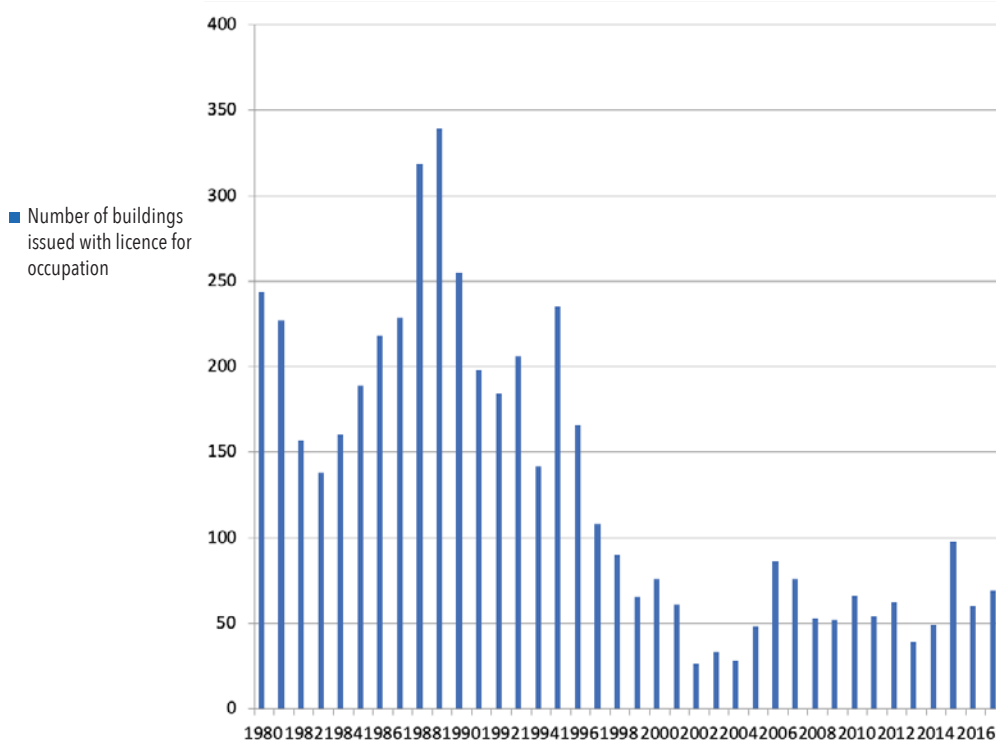
Year	Number of buildings issued with licence for occupation	Year	Number of buildings issued with licence for occupation
1980	244	1999	65
1981	227	2000	76
1982	157	2001	61
1983	138	2002	26
1984	160	2003	33
1985	189	2004	28
1986	218	2005	48
1987	229	2006	86
1988	319	2007	76
1989	339	2008	53
1990	255	2009	52
1991	198	2010	66
1992	184	2011	54
1993	206	2012	62
1994	142	2013	39
1995	235	2014	49
1996	166	2015	98
1997	108	2016	60
1998	90	2017	69

Source: The Statistics and Census Service of MSAR Government<sup>8</sup>

Figure 1 is indicative of the number of buildings aged 30 years. The number is expected to reach its peak in 2019 because 1989 had the highest number of new buildings. The limited availability of data in the public domain means that in-depth analysis on old buildings has not been possible. Detailed study on the subject is likewise constrained. For example, without information on the number of old buildings in different districts, it is not possible to analyze and study the distribution of old buildings in the city, and the relationship, if any, with the population distribution.

### Urban renewal in Macao

As early as 2006, the MSAR Government, concerned with the emerging problem of ageing buildings, had established the Advisory Committee on Old Districts (舊區諮詢委員會) to advise the government on policies relating to redevelopment of old districts. As part of the initiatives to rejuvenate the old districts, the government had proposed a scheme for one of the old districts – lao Hon District (祐漢). The initial idea was to demolish several five-storey old buildings and then to redevelop the site with high-rise buildings. This, however, was met with a number of difficulties. For example, the law does



**Figure 1** Number of buildings issued with license for occupation (1980-2017)

<sup>8</sup> <https://www.dsec.gov.mo/TimeSeriesDatabase.aspx?lang=en-US> (last accessed on 20 April 2019)

not permit redevelopment unless it is agreed to by 100% of the owners. This is virtually impossible to achieve because a number of the owners are nowhere to be contacted, let alone obtaining their agreement to redevelopment. The scheme was not able to proceed and has been shelved.



Figure 2 Streetscape of Lao Han District © Peter Lam

In 2016, the MSAR Government replaced the Advisory Committee on Old Districts with the Urban Renewal Committee (都市更新委員會). The scope of the new committee's work includes making provision for temporary housing for owners/residents affected by urban renewal projects, exploring incentives to promote urban renewal, undertaking rejuvenation of industrial buildings, and revising the requirement of owners' consent to redevelopment. Three sub-committees were set up under the committee to undertake further studies. The committee has since resolved to engage a consultant to advise and make proposals for dealing with the areas mentioned above. As of now, no concrete measures have been proposed. On the other hand, the Legislative Council is considering a bill to put in place a system of temporary and replacement housing for the affected owners during the urban renewal process. However, the drafting of the principal law on urban renewal, including the establishment of the urban renewal authority, is yet to be completed.

While the MSAR Government is still in the process of ironing out the system and mechanism for urban renewal, some owners/residents have gone ahead to rebuild their buildings. At least four residential buildings had been successfully redeveloped following agreement by all of the owners. Nevertheless, compared to the increasing number of buildings aged 30 or above, this represents a tiny percentage.

### Some thoughts on the ageing population and ageing buildings in Macao

Ageing population is a global trend and Macao is not alone in this phenomenon. Likewise, the existence of ageing buildings in urban districts is common to many cities. As with other governments encountering the problems of ageing population and ageing buildings, the MSAR Government have to identify measures and draw up plans to tackle them.

*“The current development of the Greater Bay Area may afford alternative solutions.”*

Macao has limited resources, especially land and manpower resources, with which the needs of her ageing population can be fully catered for. In this regard, the current development of the Greater Bay Area may afford alternative solutions. Macao should actively explore the possibility of tapping on the resources available in the Greater Bay Area, such as space for residential homes and manpower to meet the healthcare and other services for the elderly population. The latest Policy Address has already alluded to this possibility in encouraging Macao citizens to live, aged, work and study in the Greater Bay Area. On the other hand, the growing ageing population can be translated into a promising silver hair industry that offers golden opportunities in the realms of researches and development, commerce and business in medical and healthcare, residential homes, travel and other services. In this connection, Sun City in Arizona, United States and Yanda International Health City in Beijing are inspiring pioneering examples.

With the number of ageing buildings in the city, this is an issue that requires close attention. Among other things, the structural safety of the old buildings and their ability to withstand typhoons is an area of concern. But finding a solution to the problem is, by no means, straightforward. Considerations will have to be given to rehousing the existing inhabitants and activities before demolishing the old buildings. Given that the bulk of the urban area of Macao has already been developed, identifying space for new buildings is not altogether feasible. There is an obvious need

to prioritise the formulation of urban renewal policies and measures as well as to speed up the legislative and planning processes.



**Figure 3** Streetscape of Lao Han District © Peter Lam

According to the result of the 2016 by-census, Macao has a population of 650,834 and a population density of about 21,130 persons per km<sup>2</sup>. However, the population density varies between districts with the highest density reaching over 190,000 persons per km<sup>2</sup>. Despite it being a compact city, Macao may see a decrease in the population density when the development of the 3.5km<sup>2</sup> reclamation zone is completed. The new reclaimed land will be able to provide residential site for temporary housing for owners affected by urban renewal. This may lead to a win-win situation. On the one hand, the density of the old districts may be reduced during the urban renewal process. On the other hand, with residents from old districts moving into the new reclamation area, the pace of development of the area can be quickened. At the same time, the residents can choose between remaining in the new reclamation area and moving back to the old districts, which will have a reduced density after the renewal. With the implementation of urban renewal and the availability of the reclamation land, it is plausible that, in the not too distant future, the problem of ageing buildings will be mitigated. Moving beyond the horizon, Zhuhai, Zhongshan and Guangzhou are potential homes for residents in the old districts, with adoption of more flexible immigration policy and improvement in infrastructural and transport support.

**Acknowledgements:** We are grateful for the comments made by Natalie Hon on an earlier draft of this article.

## References

### Internet sources

Chui, Sai On, **Policy Address for the Fiscal Year 2019**, 15 November 2018, at the Legislative Assembly. <https://www.policyaddress.gov.mo/policy/home.php?lang=en>

The Cartography and Cadastre Bureau of Macao, (2018), “Number of residential, commercial and industrial buildings aged 30 years or above” [https://www.dsc.gov.mo/ENG/knowledge/geo\\_statistic.html](https://www.dsc.gov.mo/ENG/knowledge/geo_statistic.html)

The Statistics and Census Service of Macao, (2018), “Statistics Database- Buildings with License of Use Issued (Completion of Buildings)” <https://www.dsec.gov.mo/TimeSeriesDatabase.aspx?lang=en-US>

The Statistics and Census Service of Macao, (2017), “2016 中期人口統計詳細結果” [https://www.dsec.gov.mo/getAttachment/bfa0112a-eaf3-49a9-9168-b5add46e9d65/C\\_ICEN\\_PUB\\_2016\\_Y.aspx](https://www.dsec.gov.mo/getAttachment/bfa0112a-eaf3-49a9-9168-b5add46e9d65/C_ICEN_PUB_2016_Y.aspx)

Whitfield, Richard, “CARING FOR THE ELDERLY – I/II”, **Macao Daily Times**, February 3 and February 24, 2016. <https://macaudailytimes.com.mo/macau-matters-caring-for-the-elderly-i.html>; and <https://macaudailytimes.com.mo/macau-matters-caring-for-the-elderly-ii.html>

## Feature Paper

# To What Extent Can Smart City Technologies Solve Problems with Our Aging Population?

**Daniel Chun**

Chairman of Research and Blueprint Committee, Smart City Consortium

*Daniel is responsible for driving Remotec's digital transformation strategy across its product lines, including smart controls, home automation and IoT market. Daniel is also the inventor for SmartAirCon and AirXed and both projects have won Hong Kong Institution of Engineer's Smart City IoT competition in 2016 and 2019. Daniel has also co-founded an ICT start-up Art Group Limited, which has revolutionised charitable fundraising by enhancing patron engagement through the use of OpenHeart's mobile technologies. He also currently serves as Council Member and Chairman of the Research & Blueprint Committee of the Smart City Consortium.*

### The roadmap of smart city projects in Hong Kong

According to the United Nations (2018), it is projected one in every three people will live in cities with at least half million people in the future years. In order to keep the cities' living environment sustainable, safe and resilient and to increase the quality of living of the cities' inhabitants, new ways of introducing a variety of innovative technologies and introducing new policy frameworks are needed (Chourabi et al., 2012; Cocchia, 2014). It is also because of this urban development need that drives many city administrators, urban planners, industry professionals and legislators around the world to come forward and discuss how to renew existing infrastructure, develop new laws or change existing legislation to introduce innovative technologies and methods to support this growth trend.

In Hong Kong, there are also plans to become a smart city – leveling up with other economies and regional cities like Seoul and Singapore. In 2015, the Central Policy Unit of the HKSAR government had announced its plan to collaborate with research institutions, public and private organizations to study the development of implementing smart city projects. Later in the same year, the HKSAR's Innovation and

Technology Bureau (ITB) was formed, and the ITB pledged to formulate a digital framework and to develop a citywide blueprint that helps to shape the industry standards for developing Hong Kong into a smart city. The Office of the Government Chief Information Officer (OGCIO) – an HKSAR government department is tasked to implement this plan and to develop the Smart City Blueprint for Hong Kong. In June 2017, a consulting firm appointed by the OGCIO had published the consultancy report of the Smart City Blueprint for Hong Kong. In December 2017, the Chief Executive of HKSAR – Hon. Mrs. Carrie Lam, has announced to the public about the first HKSAR Smart City Blueprint and pledged that she will personally chair the steering committee on innovation and technology to oversee the development of smart city projects working with all government bureaus and departments as well as collaborating with the private sector and industry stakeholders as described in the blueprint. Besides the government's push, industry professionals in Hong Kong have also joined forces to form the Smart City Consortium operating as a non-profit organization to advocate about smart city concepts and to promote its benefits to the industry and the general public.

The concept of smart city is evolving, it has been widely discussed in literature for a long time as narratives such as digital city, intelligent city,

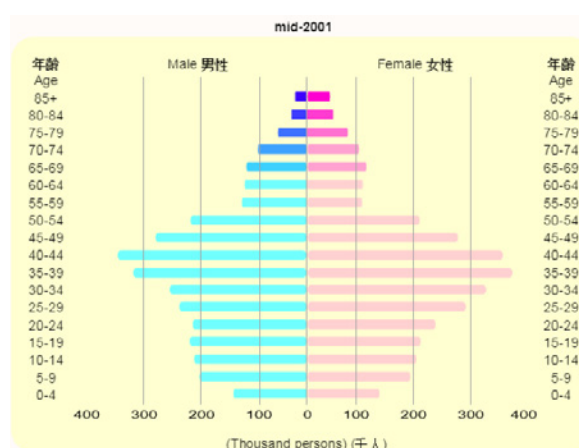
connected city, sustainable city and green city (Nam and Pardo, 2011, Chourabi et al., 2012; Hollands, 2008; Caragliu, De Bol and Nijkamp, 2011, Giffinger and Gudrun, 2010). To complicate the matter, there are also many different topic areas making smart cities a very multi-disciplinary topic. While there could be many subject matters worth discussing about policy and technologies, for the rest of this article, the focus is placed on the issues relating to aging population and public health care.

### Aging population in industrialized economies

The topic of aging population is not new. In fact, as early as 2003, the Task Force on Population Policy of the HKSAR Government had reported that Hong Kong will soon see the huge strain in public services and also increasing strain on the younger generation due to a decrease in birth rates and an increase in life expectancy. The change in the population distribution will be significantly different as depicted by the graphical representations to the right in **Figure 1** and **Figure 2** which was based on data collected by the Task Force on Population Policy, and tracked by the Faculty of Medicine of the Chinese University of Hong Kong. By observing the two graphs, it is not difficult to understand that the city will increasingly have more citizens of aged 55 and above. The capacity, adequacy, reliability and level of services from all our municipal services will have to be increased as a direct result of this changing age demographic.

Hong Kong is not alone facing this issue of aging population, and according to the World Health Organization (2018), between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22%. In literature, the term double aging has been popularized since 1991 and according to Börsch-Supan (1991), this phenomenon is observed to be most pronounced in Germany amongst industrialized economies and OECD countries like Canada, France, Italy, Germany, Japan, UK and US had shown similar patterns (see **Table 1**.)

By this estimate, it is also quite logical to make a fair judgement that more households in Hong Kong with one or more elderly would therefore



**Figure 1** Population Distribution in 2001  
Source: CUHK (2013)



**Figure 2** Population Distribution in 2031  
Source: CUHK (2013)

**Table 1** Old-age dependency ratios for seven OECD countries

	1980	2030
Canada	14.1	37.3
France	21.9	35.8
Italy	20.8	43.6
Japan	13.5	35.3
UK	23.2	31.9
US	17.1	31.1
Average of above	19.1	35.2
OECD average	18.9	33.3

Source: OECD (1988) edited from Börsch-Supan (1991)  
Note: Number of Persons aged 65 and more per 100 persons aged 15-64

require some form of medical or health-related caregiving. The demand for public health care services from the Hospital Authority (HA) will also be increased as a result. Fiscal support for such will also have to be increased. It is already been widely discussed recently at the HKSAR Legislative Council and at various committees that hospital support staff and trained medical practitioners are overworked (SCMP, 2019) and this may compromise the quality of services being delivered.

### What could the smart city technology roadmap help in public healthcare?



Source of photo and credit: Pixabay

While the notion of humanoid robot patrolling our home, delivering butler like services sounds extremely attractive for our home and the elder ones staying at home, this highly publicized technology at the application layer is by no means mature nor is it economically viable alternative to be considered as an affordable and universally accessible technology at the time of writing this article. However, it is undeniably true that such fanboy technologies are advancing so fast that it could very well be in place in the future if and when issues such as failsafe, cybersecurity, privacy issues, battery standby, operating lifetime, and always-on 5G mobile communications are all resolved. After all, the narratives of machine intelligence, artificial intelligence and deep learning have come a long way since many of us left campus, and disserted those mainframe computers and dumb terminals for which the most trivial computer automation routine and decision making was appropriated as an expert system (Horvitz, Breese and Henrion, 1988). Talking screens and intelligent robots could become the future of elderly care in the future.

So, if humanoid robots are not entirely ready to replace the tender loving care offered by healthcare workers (Locsin and Ito, 2018) as yet, does it necessarily mean that the ontology (nature) and epistemology (practice) of healthcare could not be re-engineered and reprioritized with appropriate technology enhancement to provide predictive and preventive healthcare. In light of this argument, we are in the opinion that healthcare workers and their professional practice could be greatly enhanced with the application of appropriate sensors and big data analytic network, a fiscal policy and a holistic strategy that supports the concept of smart living and healthy environment.

*“Aging with dignity is mere fantasy of most senior citizens.”*

In 2015, Hong Kong had 1.12 mil people aged over 65, 15% of which were over 85. The trend of the aging population is getting steeper as baby boomers reach their retirement age. By 2040, one in every three people in Hong Kong will be over 65 (Legco, 2015) Currently, there is a queue of 32,000 elderly citizens waiting for nursing homes. And equally alarming is that there are over 18,000 new cases of elderly citizens diagnosed with dementia each year. Our current senior care and healthcare systems have been placed under an unprecedented amount of pressure. Meanwhile, aging with dignity is mere fantasy of most senior citizens. In order to facilitate healthy aging in Hong Kong, there are opportunities now to create and foster a Proactive, Predictive and Preventative living environment supported by a holistic smart health system that links up families, neighbors, caregivers and doctors together, to keep our elderly citizen safe, healthy and happy at home. By adopting these three pillars, this could improve our elderly citizen’s wellbeing while distributing resources equitably to those in need.

The following three pillars are part of our recommendations which were also presented in the Smart City Consortium’s Interim Advisory Report for Hong Kong’s Smart City Blueprint (SCC, 2016):

**i) Proactive Smart Health Monitoring** - An indoor and outdoor smart Internet of Things



(IoT) network could be deployed to sense delta change of real-time individual's health status, biometric measurements, living habit and social behaviors. These could be integrated into any smart home devices and ecosystem and could also link up with individual doctor's clinic and hospital – providing comprehensive health data and knowledge management for each individual. Additional datasets like the amount of exercise being carried out, sleeping profile, dietary intake, would be also useful for health practitioners and for medical research. In order to facilitate healthy aging, there could be opportunities to create Proactive, Predictive and Preventative plan to improve senior citizens' wellbeing.

**ii) Predictive Smart Health Analysis** - a big data analytic platform will be designed for digital healthcare professionals to share and discover correlations between environmental changes and associated health risks by integrating raw data and digital health records, with a proprietary algorithm developed to predict acute diseases and provide real-time advice for personalized medical treatment.

**iii) Preventative Smart Health Community Network** - this intelligent ICT solution would involve Government emergency units, medical professionals, and the support from local community organizations. With the availability of electronic health records sharing to authorized professionals, tele-medical consultation could become feasible for patients with chronic illness at home, saving their time and effort to make regular visits to doctors. Precise and personalized medication will also be possible for medical diagnosis based on individuals' living habits. In the case of any emergency, the Smart Health community network could also deliver immediate alerts to the nearest neighbor to locate the person in need.

This strategy will trigger a paradigm shift for the Hong Kong's healthcare system, by changing the traditional reactive medical care approach to a predictive and preventative monitoring. It encourages patients to seek medical advice in the early stages, and helps to alleviate pressure on frontline healthcare workers and reduces the overall cost of treatments. With the latest

implementation of the electronic health record sharing system in Hong Kong, this strategy will allow further adoption and application of many types of new quantitative data driven technologies and intelligent algorithms that could handle mundane and error-prone tasks that usually rely on caregiver's knowledge and time.



Source of photo and credit: WBD101

Such advanced technologies including IoT network and sensors in different forms could be found in the marketplace or under development by many local and foreign technology companies. Examples of such could be personal ECG data recorder systems, residence safety and sleep monitoring system, fall detection and behavior monitoring, medication reminder and dispensing system, smart indoor air-quality and climate control system, new wearable devices measuring various health indices that are similar to a routine body check and critical illness alert at clinics. A smart hearable device that detects a person's physiological information including heart rate, stress level, motion, sudden jerk (such as an unexpected fall) or the lack of motion, etc through photoplethysmography (PPG) signals. Local award-winning technology provider WBD101 has also demonstrated the inclusion of very accurate and very small sensing technology into hearing aids that can detect that aforementioned physiological information that could be applied towards preventive elderly care.

It is too early to stage the support for the plethora of the latest innovative technologies that could be

widely deployed for preventive health care; and it is certainly too early to conclude that these technologies could solve all problems. It is however the responsibility of our government to actively provide fiscal policy support to the industry by inviting both overseas and local technology companies to supply their technologies to serve these needs. In Hong Kong, there is presently a funding program available for serving this type of needs in achieving smarter living and healthy wellbeing (namely the Innovation & Technology Fund for Better Living). However the structure of the program is far too complicated to administer and costly for these technology companies to consider (Ming Pao, 2018). With the proper governance and a change in mindset for the panels of judges and government officials, smaller proof-of-concept projects could gain traction to test in a realistic elderly care environment and help combat the challenges ahead. Such public-private partnership in smaller proof-of-concept projects will therefore lead to small win which in turns will lead to bigger wins.

In summary, the innovative use of technologies to a certain extent should by design be able to alleviate problems and help human to solve problems by detecting them earlier and through massive data collection and analysis. The problem presented in this paper highlighted the perpetual nature of the double aging problem in many industrialized economies such as Hong Kong and one that smart city technologies, particularly for those wearable sensors and devices, big data strategy complemented by artificial intelligence and an efficient IoT network, could be smartly deployed to maximize the impact in providing public healthcare.

### Bibliography

Börsch-Supan, A. (1991). Aging population: Problems and policy options in the US and Germany. *Economic Policy*, 6(12), 103-140.

Caragliu, A., Del Bo, C., & Nijkamp, P. (2011). Smart cities in Europe. *Journal of urban technology*, 18(2), 65-82

Chourabi, H., Nam, T., Walker, S., Gil-Garcia, J. R., Mellouli, S., Nahon, K., ... & Scholl, H. J. (2012, January). Understanding smart cities: An integrative framework. In *System Science (HICSS), 2012 45th Hawaii International Conference on* (pp. 2289-2297). IEEE

Cocchia, A. (2014). Smart and digital city: A systematic literature review. In *Smart city* (pp. 13-43). Springer

International Publishing.

CUHK (2013) Demography of Aging in Hong Kong. Retrieved from website on March 13, 2019 [http://www.cuhk.edu.hk/med/shhcgg/healthyageing/ageing\\_in\\_hk\\_demography.html](http://www.cuhk.edu.hk/med/shhcgg/healthyageing/ageing_in_hk_demography.html)

Giffinger, R., & Gudrun, H. (2010). Smart cities ranking: an effective instrument for the positioning of the cities?. *ACE: architecture, city and environment*, 4(12), 7-26.

Hollands, R. G. (2008). Will the real smart city please stand up? *Intelligent, progressive or entrepreneurial? City*, 12(3), 303-320

Horvitz, E.J., Breese, J. S., & Henrion, M. (1988). Decision theory in expert systems and artificial intelligence. *International journal of approximate reasoning*, 2(3), 247-302.

Klaesson, J., Lopez, E., & Öner, Ö. (2018). Who Works Longer—and Why? Regional and Individual Characteristics in the Timing of Retirement. *Tijdschrift voor economische en sociale geografie*, 109(3), 350-370.

Legco (2015). Population Profile of Hong Kong. Retrieved from web at <https://www.legco.gov.hk/research-publications/english/1415in07-population-profile-of-hong-kong-20150416-e.pdf>

Locsin, R. C., & Ito, H. (2018). Can humanoid nurse robots replace human nurses?. *Journal of Nursing*, 5(1), 1.

Ming Pao (2018), News report retrieved from web at <https://news.mingpao.com/pns/%E6%B8%AF%E8%81%9E/article/20180115/s00002/1515952906403/5%E5%84%84%E5%89%B5%E7%A7%91%E7%94%9F%E6%B4%BB%E5%9F%BA%E9%87%91%E8%A2%AB%E6%89%B9%E9%99%90%E5%88%B6%E5%A4%9A-%E5%88%9D%E5%89%B5%E9%9B%A3%E7%8D%B2%E6%89%B9>

SCC. (2016), Smart City Consortium's Interim Advisory Report for Smart City Blueprint of Hong Kong retrieved from web March 15, 2019 on [https://smartcity.org.hk/upload/articles\\_lv1/0/20190215065411\\_610.pdf](https://smartcity.org.hk/upload/articles_lv1/0/20190215065411_610.pdf)

SCMP (2019). Website retrieved on March 13, 2019 at <https://www.scmp.com/comment/insight-opinion/hong-kong/article/2187713/hong-kongs-public-hospitals-are-struggling-our>

United Nation (2018). The World Cities in 2018. Retrieved from the Internet from [https://www.un.org/en/events/citiesday/assets/pdf/the\\_worlds\\_cities\\_in\\_2018\\_data\\_booklet.pdf](https://www.un.org/en/events/citiesday/assets/pdf/the_worlds_cities_in_2018_data_booklet.pdf)

World Health Organization (2018). Ageing and Health. Retrieved from website on March 13, 2019 at <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>

## Column

*“There is a fountain of youth: it is your mind, your talents, the creativity you bring to your life and the lives of people you love. When you learn to tap this source, you will truly have defeated age.”*  
— Sophia Loren

# 02

## Column

# Transit-oriented Development in Hong Kong – by Design or by Default?

**Jimmy C. F. Leung**

*Jimmy C. F. Leung is currently Adjunct Professor, Department of Geography and Resource Management, the Chinese University of Hong Kong. Views expressed are his own and do not represent those of the organization in which he is associated with.*



Transit-oriented development (TOD) has been hailed as a success in Hong Kong currently with a daily rail patronage of 5.7 million<sup>1</sup>. The concept has been replicated in other cities notably those in the mainland of China<sup>2</sup>. There are many papers published on Hong Kong's TOD<sup>3</sup>. However, it seems that not much has been written on how TOD comes about in this city and this article is intended to fill this gap.

To begin with, what exactly is TOD? C40 Cities describe TOD as “an urban planning principle that high-density, mixed use development integrated with a robust public transport system.”<sup>4</sup> The benefits of TOD include reducing carbon emissions to achieving sustainable and liveable cities.

<sup>1</sup> Please see [https://www.td.gov.hk/filemanager/en/content\\_4937/table21s.pdf](https://www.td.gov.hk/filemanager/en/content_4937/table21s.pdf)

<sup>2</sup> Topside developments above stations along Line 3, 4, 5 and 6 in Shenzhen are good examples. However, where high-speed rail is involved, it is more appropriate to describe it as “development adjacent to transit”. The ownership and operation of high-speed rails and city rails belong to different levels of government. They are designed and built as different projects. There are no top-side development above high-speed rail stations, for example, Hong Qiao Transport Hub in Shanghai.

<sup>3</sup> One of the most comprehensive studies on TOD and the Rail + Property Model in Hong Kong is the “Study of Integrated Rail-Property Development Model in Hong Kong” by BS Tang and others, 2004. Please also see Bill Barron and others, *Financing Mass Transit Railways – an international survey*, The Centre of Urban Planning & Environmental Management, 2001, Robert Cervero and Jim Murakami, “Rail and Property Development in Hong Kong: Experiences and Extensions”, *Urban Studies* 46 (10) pp 2019-2043, 2009 and Steve Yiu, “Railway and Development integration in Hong Kong for 35 years”, *Planning and Development*, Vol 29, Issue No. 1, pp 27-41, 2014

<sup>4</sup> C40 Cities, Climate Leadership Group, *Transit Oriented Development, Good Practice Guide*, 2016, p.4 For more definitions of TOD, please see “Transit-Oriented Development and Joint Development in the United States: A Literature Review”, Transit Cooperative Research Program, sponsored by the Federal Transit Administration, RESEARCH RESULTS DIGEST, October 2002, Number 52, p. 5-6

Railway has been serving Hong Kong for over 100 years. The former Kowloon-Canton Railway (British Section), now the East Rail, was built in 1906 and completed in 1910. Apart from a branch from Fan Ling to Sha Tau Kok operating from 1912 to 1928, no new railway was built until the completion of the 15.6 km “Modified Initial System” in 1979.<sup>5</sup> There was of course no TOD to speak of, as the term was introduced by Calthorpe in 1993.<sup>6</sup>

The idea of building the mass transit system in Hong Kong began with the Hong Kong Mass Transit Transport Study in 1967. The objective of the study is “to develop the best solution to Hong Kong’s long-term mass transport problems consistent with planning goals, development plans and a level of mobility that will allow the Colony to continue to prosper.” Hong Kong was described as a “topographically unpromising area” and “the land consisted largely of precipitous hillsides; but by moving the mountains and filling the sea, usable land has been created.”<sup>7</sup>

The report went on to say, “[T]he maintenance, substantially unchanged, of a fare structure established in 1946, is a major achievement. This has been done without any direct or indirect subsidy from Government. On the contrary, the companies make substantial royalty payments to Government and at the same time produce profits for their shareholders. A number of favourable factors make these results possible. The growing and increasing mobile population and a rapidly expanding economy are the primary factors. *The constriction of the population and employment into a compact land area is also important*, as is the almost complete absence of pronounced peak hours of the day or peak day of the week. All these factors have produced a very high number of passengers per mile of service...”<sup>8</sup> (emphasis added)

It is interesting to note a former Chairman of London Transport Board and a former assistant operating manager of London Transport Railways acted as special consultants to the study bringing with them experiences in the construction and operation of underground railway in a city.

In the repealed Mass Transit Railway Corporation Ordinance CAP 270 in 1975, section 13(1) states that “[T]he Corporation shall conduct its business according to *prudent commercial principles and shall ensure as far as possible that, taking one year with another, its revenue is at least sufficient to meet its expenditures.*” (emphasis added) What this means is that the MTRC should rely on the market rather than subsidies from government in the construction and operation of the system.

The Hong Kong Long Term Road Study<sup>9</sup> completed in 1968 highlighted 3 scenarios:

*Scenario 1 – public transport continued to be provided by conventional buses and trams operated mainly at street level*

*Scenario 2 – rapid-transit system recommended by the Mass Transit Study to be implemented with the first line coming into service in 1974*

*Scenario 3 – sharply reduced level of future car ownership with very high tax, if rapid-transit not provided*

The eventual path of rail development in Hong Kong, which is among cities that exemplify transit systems, is of course history. (See Figure 1)

The development of railways in a city does not necessarily lead to TOD. London developed their first rail District Line in 1863, but it did not have the density to enable TOD at least until the Jubilee Line extension in 1999 at Canary Wharf. On the contrary, Hong Kong has had one of the

<sup>5</sup> Charles CP Lung & Y F Sung, A Century of Railway Development: the Hong Kong Story, IRSE, 2012 <http://www.irse.org/knowledge/publicdocuments/1.07%20Lung%20-%20Century%20of%20Railway%20Development%20Hong%20Kong.pdf>

<sup>6</sup> Please see Glen Searle and others, “Positive and Negative Factors for Transit Oriented Development: Case Studies from Brisbane, Melbourne and Sydney, Urban Policy and Research, 2014

<sup>7</sup> Freeman, Fox, Wilbur Smith & Associates, Hong Kong Mass Transit Transport Study, Hong Kong Government Printer, 1967

<sup>8</sup> Ibid, p. 11

<sup>9</sup> Freeman, Fox, Wilbur Smith and Associates, Hong Kong Long Term Road Study, 1968



Source: LSE Cities 2014 based on ADB 2009 and Hickman and Banister 2014

**Figure 1** Urban Accessibility Pathways based on Barter's City Typology and Transport Development Path

Source: Philipp Rode, Graham Floater and others, Accessibility in Cities: Transport and Urban Form, NCE Cities - Paper 03, LSER Cities & LSE, 2014

highest population densities among cities in the world<sup>10</sup>. Dictated further by rugged topography, developments are concentrated within compact flat land.

The Territorial Development Strategy completed in 1984 is the first strategic plan in Hong Kong that has adopted an integrated land use and transport model in assessing different land use options. This, I believe, has eventually paved the way for subsequent development of TOD in the city.

In commenting on the provision of new passenger rail system ahead of or at least in parallel with the development of new strategic growth areas, the Territorial Development Strategy Review, completed in 1998, considered that due regards should be given to the long-term economic benefits to be gained, and "*proactive steps may thus need to be taken to link property development with the*

*provision of stations/depots so as to help achieve the viable provision of a new rail service.* There are several precedents for such an approach, the initial phase of development at Tung Chung being an example."<sup>11</sup> (emphasis added) This is a clear planning attempt to achieve TOD.

The Third Comprehensive Transport Study in 1999 recommended the policy with railways as the backbone of Hong Kong's future public transport network. The TOD concept was further elaborated: "[M]eans should be sought to maximize railway usage. This can be achieved through revisions to the planning guidelines to strengthen existing integrated approach to further explore development opportunities along major transport corridors, to intensify development (e.g. by increasing plot ratio) around rail stations and public transport interchanges, and to provide better pedestrian links with the transport systems. By concentrating population

<sup>10</sup> Please see Jon A Prescott, "Hong Kong: the form and significance of a high-density urban development" in D J Dwyer, Asian Urbanization, Hong Kong University Press, 1971. A density of 9,800 persons per acre was identified in the Mong Kok district in the 1960s

<sup>11</sup> Please see Planning, Environment and Lands Bureau, The Government of the Hong Kong Special Administrative Region, Territorial Development Strategy Review – A Response to Change and Challenges, 1998, p. 81

and employment around railway stations, reliance on the private cars will be reduced, with consequent benefits for road traffic conditions and the environment.”<sup>12</sup> and “... for a new rail line to have a substantial impact on road traffic requires some other inducement, such as traffic demand management measures should be applied at the same time. It is not simply a matter of providing the rail line and expecting that road traffic will fall as a consequence.”<sup>13</sup>

*“Hong Kong's TOD came about by default and by design, in that order”*

In Hong Kong, the high concentration of population and employment provides a very favourable condition for adopting TOD. The statutory requirement of the MTRC to operate on a commercial prudent principle prior to the partial privatization necessitated a strong market orientation on the part of the Corporation. The station design, transport interchange and pedestrian walkway system are also part and parcel of the TOD concept. The supplementary traffic demand management measures such as fuel tax, car registration tax, toll charges etc. are well recognized by government, as essential measures to discourage people to use private cars. Looking back, one may describe that Hong Kong's TOD came about by default and by design, in that order; or better still the concept that has evolved and come into fruition over a period of more than twenty years. TOD in Hong Kong is best epitomized by the above-station developments at the Kowloon Station, Tsing Yi Station, Tung Chung Station and LOHAS Park at Tseung Kwan O.

To sum up, TOD is not just about the higher density, mix use development above rail stations. It is also a means to finance the construction and operation of railway by capturing the value of a rail line brings. The form of development and the financing of rail development (The Rail + Property

Model as coined by the MTRC) are indeed two sides of the same coin. To ensure success of TOD, careful design of the stations and the necessary policy backing in traffic management measures are also vital.

*Post-script: The mass transit system has served Hong Kong well and is acclaimed internationally. However, the recent construction scandal associated with Shatin-Central Link, the delay and overbudget of the high-speed railway and the service disruptions arising from the testing of a new signaling system etc. have compromised the MTRC's corporate image. Whether this is due to complacency, the change of corporate culture, the partial privatization in 2000, the lack of competition, etc. may warrant a separate study. What needs to be pointed out though is that Hong Kong is not alone in facing such problems. While underground railways are highly efficient in moving people and environmentally friendly, they are very expensive to build, operate and maintain. Witness the sorry-state of the New York Tube System<sup>14</sup> and the financial burden for re-investing in the London Underground<sup>15</sup>. Even the Singapore MRT was plagued by severe service breakdowns since 2011 with the system eventually nationalized in 2016<sup>16</sup>. For cities embarking on massive construction programme of mass transit systems, beware!*

<sup>12</sup> Transport Department, HKSARG & Wilbur Smith Associates Ltd., Third Comprehensive Transport Study Technical Report, October 1999, para. 8.1.4

<sup>13</sup> Ibid, para. 13.6.3

<sup>14</sup> <https://www.nytimes.com/2018/01/03/magazine/subway-new-york-city-public-transportation-wealth-inequality.htm>

<sup>15</sup> Please see <http://www.cityam.com/1406825517/plans-future-london-transport-night-tube-crossrail>

<sup>16</sup> Please see [https://ipfs.io/ipfs/QmXoyvizjW3WknFjnKlWHCnL72vedxjQkDDPImXW6uoco/wiki/List\\_of\\_Singapore\\_MRT\\_disruptions.html](https://ipfs.io/ipfs/QmXoyvizjW3WknFjnKlWHCnL72vedxjQkDDPImXW6uoco/wiki/List_of_Singapore_MRT_disruptions.html) and

<https://www.straitstimes.com/forum/letters-in-print/compensate-commuters-every-time-there-is-a-serious-delay>

## Column

# A&A – Problems & Solutions

---

### Andrew Lam

Mr. Andrew Lam is a veteran town planner involved deeply in professional researches and education in parallel with his practice. He has dedicated most of his time on community services. He was appointed to serve on numerous advisory and statutory bodies. He is currently Member of Lantau Development Advisory Committee, and Member of Advisory Committee on Countryside Conservation.



Ageing is an irreversible process caused by slowing down of cell reproduction and replacement. Anti-ageing treatments could help reducing wrinkles and improve skin texture, but avoiding the pain of tissue repair or operation is simply cosmetic.

The hard facts facing us are within 25 years, while our child dependency ratio will remain the same, our elderly dependency ratio will be doubled; it never rains but it pours, while 326,000 private residential units will be approaching the end of their design life span, the average demolition volume for the past 10 years is less than 2000 units per annum, that means it will take over 160 years to replace our 'known-old' private housing stock at the current pace, not to mention the 'new-old' in the pipeline.

The 'double ageing' issue: ageing population and ageing buildings, is a known problem of our city that hopefully does not require any lengthy consultation to diagnose and ascertain. It does not take a genius to figure out what have to be done in regenerating our private housing stock, but politics always call for the entire population

to agree on the prescription for a cure - a process which so few genius in the world through history can do right!

*“The quickest way to kill a wishing-tree is to throw everyone’s wishes on it!”*

The quickest way to kill a wishing-tree is to throw everyone’s wishes on it! Balance is a key planning principle which could be achieved at local or strategic levels, but decision makers including planners have to make tough choices from time to time. In a civic society, we have to allow ample rooms for public engagement at local level, but better urge our leaders to bite the bullet of strategic decisions. If there is anything more to learn from the British after 1997, that is the saga of 'Brexit'!

Is anyone wrong in sharing visions of pain and faces of moaning patience in the hospital bed, and asking those who are heading towards the operating theatre whether they enjoy being



hospitalised and undergo surgical procedures? Perhaps not! But those answers should not be the reasons for holding back medical treatments. What our society as a whole should be seeking hand-in-hand is looking for a dose that can reduce the pain during the process and speed up recovery.

Assuming we would like to accelerate the regeneration process by five times, that means more than ten thousand homes have to be taken down every year. Where is our decanting and relocation stock? Or can we simply imagine a bit-by-bit pump-priming approach can work to such perfection that it will at the same time replace or even add to the needed housing stock in the prime urban areas, increase various social facilities and amenities, enhance the quality of both in and out door spaces, but without much impact on traffic and environment?

Preparing our city for the ageing population is not just about finding space for elderly facilities, nor the provision of certain across-the-board standards or guidelines could address all the problems. Preference of elderly is determined by their psychological as well as physical conditions, and in many cases the collective choice of their family. Individual choice may vary at different stages and is often determined by mobility rather than age, though the correlation between the two factors is significant. Upgrading of homes where elderlies are living in is as important as building more elderly homes.

There is no doubt that good design and technologies can contribute a lot to the betterment of the living environment for the elderly. The rise of artificial intelligence and aiding robots are already in our line of sight, and presumably awaiting their master to call for their service in the near future. Packing all the needed facilities and gadgets in tight spaces is somewhat design professionals in Hong Kong can innovate and showcase the world.

What we should not neglect, however, is that Hong Kong is primarily a vertical city, whatever equipment needed to sustain our daily operation requires high level of stability in electricity supply. Despite how much we did better than Louisiana

or many places in Japan after being hit by storm, we are always at risk under unpredictable extreme weather. A breakdown in our electricity-grid means paralysis, and both the internet of human and things will be immobilised.

Facing the certainty of our decaying structures, a series of serious 'alterations and additions' works have to be carried out at city scale. Changes in many aspects are essential operations that we have to bear for the sake of rejuvenating our city. Many of us will remain skeptical if not worried. In my view, the real challenge of expediting the upgrading programme for our hardware is not about availability of resources, but rest with how receptive is our ageing population towards rapid changes.

*“Conventional blueprint can no longer address the complexity of the issues, and what concerns us has gone well beyond the nuts-and-bolts of urban regeneration.”*

Conventional blueprint can no longer address the complexity of the issues, and what concerns us has gone well beyond the nuts-and-bolts of urban regeneration. Relevant authorities have to set out a social programme that can prepare elderlies for facing changes before that happen and assist them to adapt to changes through the course. That requires active multi-disciplinary city management scheme with district-based integrated services. We need to train up 'docents' for our renewal schemes, not simply for dispatching information but 'guiding' the needy through the path of anxiety and dismay.

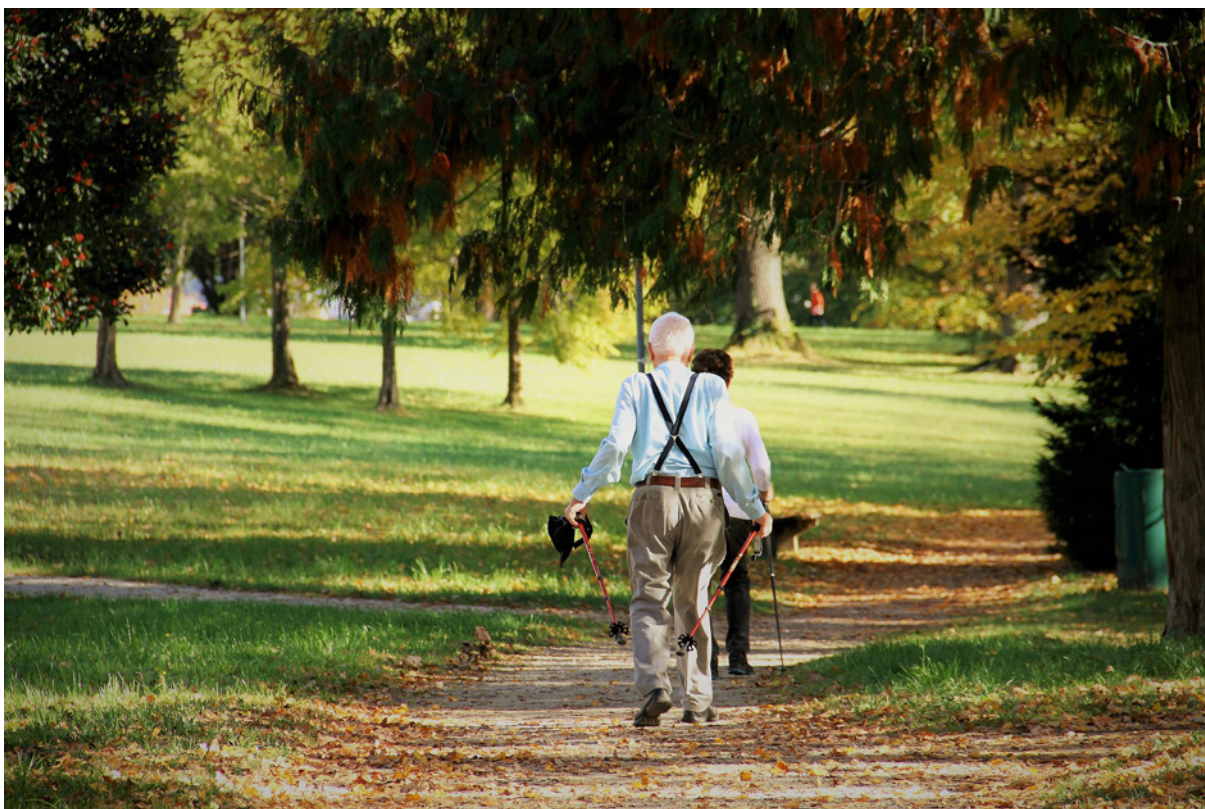
We are all ageing! Yesterday is the time to act, hopefully today is not too late! Or else the symptoms will hit us before we realise the damage.

## Column

# Ageing and the Environment

### Betty Ho

*Ms Betty S.F. Ho is the Director of PlanArch Consultants Ltd. She is dedicated to integrating environment conservation and urban planning. She was appointed to many boards and committees, many of which are related to the environment, including Advisory Council on Environment, Marine and Country Parks Board and the Sustainable Development Council. She is currently a member of the support group of the Long Term Decarbonisation Strategy and Director of The Conservancy Association.*



Hong Kong has experienced rapid development after the Second World War. With influx of huge population from the Mainland and baby boomers after the War, we are now having a large proportion of elderly people. Meanwhile, we also enjoy the longest life expectancy in the world, with 87 years for women and 81 for men. In 2011, only about 13% of the total population was aged 65 or above, but it is expected to increase to 30% by 2040. Such substantial changes in our age structure leads to unprecedented demand for elderly-friendly environment in Hong Kong.

The Government has a clear goal of “ageing in place”, but how to achieve active ageing and fulfill the various needs of the elderly population is a big challenge for our society. Let us look at the

three aspects of sustainable development: social, economic and physical environment and their relationship to the quality of life for the ageing population.

As pointed out by Dr. Jackie Kwok (2013), “ageing is not a barrier to active social life. In reality, poverty is the major factor that creates both helpless and hopeless feelings among the elderly people... The most important issue is to make the city life more affordable to all.” Indeed, the better-off elderly people will be able to access to different kinds of amenities and facilities, travel freely and widely, engage in various social activities and enjoy their retirement lives. For the less fortunate grass-root elderly people, the Government should provide adequate social infrastructure including social

welfare, social security and supporting facilities to allow they live with dignity. However, these social infrastructures will only support the livelihood of the elderly, but does not mean that they will have active ageing.

If we want a more socially cohesive, socio-spatially equitable and inclusive community suitable for active ageing for all, town planning is an important driver. At present, planning for the elderly, to a large extent, means planning according to the requirements of the Hong Kong Planning Standards and Guidelines. This is definitely inadequate, as the lists on provision of open space and community facilities are not comprehensive enough to meet their modern needs, not to mention the quality of provision. The Government and planners should understand and integrate the concern of the elderly into urban planning and design policies. Planning for elderly facilities should be robust with flexible use which can be in quick response to the population profile in specific districts. In particular, area-based social interventions and inclusive design are required to improve disadvantaged neighbourhoods.

Studies in Hong Kong and overseas find that if the elderly people have easy and comfortable accessibility to neighbourhood community services/ facilities and well-designed public space, they will be more willing to go out and get involved in social activities. Indeed, good neighbourhood design has significant influence on active ageing for all elderly regardless of their socio-economic background. As physical living environment are related to the elderly's social, physical and psychological health and well-being, special measures should be adopted to improve the physical and social environments of the elderly in the poor neighbourhoods in old urban areas. The elderly need places to walk, to meet others and to stay active. Local shopping and services, community facilities, adequate and friendly public transportation, pedestrian infrastructure with dignified walking environment, public open space with suitable facilities including seating areas, exercise tracks and corners, shades and greenery as well as toilet facilities should be provided in the neighbourhoods.

In recent years, studies have revealed that

connection with nature and biophilic design are vital components to human health and well-being. Green spaces have direct health benefits by providing urban residents spaces for physical activities and social interactions, and allowing psychological restoration to take place, enhancing well-being and happiness. According to the World Health Organization, green spaces such as parks, sports fields, woods and natural meadows, wetlands or other ecosystems, represent a fundamental component of any urban ecosystem. While the green and blue space provide environmental benefits like producing oxygen, help filtering out harmful air pollution and cooling the city, they also provide places for walking, carrying out physical activity, social interaction and recreation, and are important to physical and mental health in reducing health inequalities and improving well-being.

In Hong Kong, morning walk is a popular activity amongst elderly people. Morning walks are not limited to doing exercise in the parks, and actually quite a number of elderly like to have morning hike and walk in the hill. The nature is free for all to enjoy. Thus, having green space near their neighbourhoods and providing safe walking trails with supporting facilities, such as seating areas and toilets as well as some accessible routes, would encourage them to walk more and interact with other people to promote health and active ageing.

*“Provision of adequate green and blue space for the community is for all and the elderly should enjoy it just like other members of the community.”*

In fact, provision of adequate green and blue space for the community is for all and the elderly should enjoy it just like other members of the community. Intergenerational open space is a growing trend worldwide. While the parks or open spaces are open for use by people of all ages, innovative design will be required to encourage different generations to mingle and socialize for a harmonious society. Thang (2015) developed the concept of an intergenerational contact zone (ICZ) which is defined as a physical place

for all generations to meet, interact and relate to each other. City parks as ICZs are meant for sharing common public spaces, and it is therefore important to rethink the design and geography of city parks to facilitate the interaction of all generations through common leisure areas. The new intergenerational play space at Lilydale Lake Park, Melbourne, themed on “strong connection with nature” helps different generations to bond together. Such designs should accommodate the needs and uses for all generations and promote intergenerational interactions.

On the other hand, many elderlies are living in old neighbourhoods. Even though the environment may be crowded or untidy, they are familiar with the neighbourhood and feel comfortable to move around. Should the old neighbourhoods be redeveloped into modern buildings, they may find themselves out of place and do not feel at ease going out. While familiarization programmes should be conducted to enhance their identities with the new area, it is more important that if their living units and their neighbourhoods are to be redeveloped, they should be accommodated in the local area where they can find identity, connection and association.

*“Elderlies should not be seen as receivers, but they are also important givers in the continuation of culture, kinship and sense of togetherness.”*

Age friendliness requires an intergenerational approach where elderlies should be recognized as part of the entire community. It is important to recognize the significance of their participation and contribution. Elderlies should not be seen as receivers, but they are also important givers in the continuation of culture, kinship and sense of togetherness. In fact, growing old is a natural process for all. Therefore, a positive attitude should be borne in mind in the planning for an inclusive and intergenerational city.

## Reference

Kwok, Yan Chi Jackie, (2013), Projecting Sustainable Living Environment for an Ageing Society: The Case Of Hong Kong, in *Procedia Environmental Sciences*, Volume 17, 2013, Pages 675-684, accessed at <https://www.sciencedirect.com/science/article/pii/S1878029613000868> on 20 April, 2019

Chiu, Rebecca L. H., Improving Livability in Ageing Hong Kong, presented to The University of Hong Kong, on 18 April 2017, assessed at [https://www.ke.hku.hk/assets/doc/KEAward/2017/Architecture\\_PPT.pdf](https://www.ke.hku.hk/assets/doc/KEAward/2017/Architecture_PPT.pdf) on 10 April, 2019

World Health Organization website, Green Space in Health and Sustainable Development. Assessed at <https://www.who.int/sustainable-development/cities/health-risks/urban-green-space/en/> on 25 April, 2019

Cláudia Azevedo, (2016) “How to take advantage of existing city parks’ infrastructure to promote intergenerational programmes?” in Blog, 08 Mar 2016, The Oxford Institute of Population Ageing. Assessed at <https://www.ageing.ox.ac.uk/blog/2016-Intergenerational-programmes-BLOG> on 3 May 2019

Thang, L.L. (2015), Creating an intergenerational contact zone: Encounters in public spaces within Singapore’s public housing neighbourhoods, Chapter 2 in R. Vanderbeck & N. Worth (Eds.). *Intergenerational spaces* (pp. 17-32). London, UK: Routledge. Assessed at <https://aese.psu.edu/extension/intergenerational/articles/intergenerational-contact-zones/introduction> on 25 April, 2019

ABC Radio Melbourne, 26.4.2017, Melbourne's newest playground the result of asking children what they want, assessed at <https://www.abc.net.au/news/2017-04-26/intergenerational-playground-opens-at-lilydale-lake-park/8468058> on 24 April, 2019

80 QUEEN'S ROAD CENTRAL



# HQUEEN'S




## THE CENTRE OF AN ARTFUL LIFESTYLE

80 QUEEN'S ROAD CENTRAL



[WWW.HQUEENS.COM.HK](http://WWW.HQUEENS.COM.HK)

  HQUEENSHK



HENDERSON DEVELOPMENT AGENCY LIMITED

## Student Corner

*“I am not young enough to know everything.”*  
— Oscar Wilde

# 03

## Student Corner

# Planning for the Aged: Observations from Sham Shui Po District

**Keith L.C. Wu and Vidyan P.S. Ng**

The Young Planners Group

*Keith L.C. Wu and Vidyan P.S. Ng are and were the co-chairpersons of the Young Planners Group of the HKIP in 2018 – 2020 and 2016 – 2018 respectively.*

### Background

In 2030, one out of three persons in Hong Kong would be aged 65 or above according to the “Demographic Trends in Hong Kong 1986 – 2016” (Census and Statistics Department, 2017). The demographic trend would be more unequivocal in 2046 when one out of every ten persons are aged above 85. With the broad agenda to minimize impacts on the social and fiscal costs as well as uplifting overall well-being, concerted efforts from different sectors in our city are essential to address the pressing ageing problem in the coming 20 years. Town planning, among the various professions and industries associated in this policy arena, has a prominent role to play from both strategic and spatial planning perspectives.

Building an elderly-friendly city necessitates a holistic mindset as well as an overarching planning vision of policy-maker. Hong Kong is committed to edge up the endeavours to promote an inclusive, supportive and liveable city with universal access and sufficient elderly care facilities with the view to promoting active ageing and ageing in place in the latest strategic plan “Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030” (HK2030+) (Development Bureau, 2016). Echoing the above directive, the notion of “Ageing in Place” has been the policy direction to guide relevant strategies and measures with the view to reducing the institutionalization rate through promoting home-based and neighbourhood-based caring service support. According to the World Health Organization (WHO) (2007), an

elderly-friendly city should possess attributes of eight policy areas, including considerations to built environment, elderly service support and social participation and inclusion. Whilst the social service and healthcare sector is playing an indispensable role in addressing the fundamental needs of an elderly population, quality of the urban environment and community facilities provision, which linked closely with town planning, is equally important.

In this connection, the Young Planners Group (YPG) of the Hong Kong Institute of Planners (HKIP) conducted a research on **Age-friendly City** between February and October 2017, with the objective to **explore the current limitations and possible planning responses to plan Hong Kong ahead amidst the ageing trend** (the Study). Built upon the model by WHO, the Study proposed the Age-friendly City Framework as an action skeleton for planners to shape an inclusive city for the elderly based on its five planning perspectives, including **Transportation, Outdoor Spaces and Buildings, Housing, Community Support and Health Services, and Civic Participation and Employment** (Figure 1). The first three perspectives are key determinants of physical environment that imposes direct influence on physical mobility, health and safety, and ability for continuous social participation, whereas Community Support and Health Services is another fundamental pillar underpinning both mental and physical well-being of the aged community. Town planning always places strong attention to the above Age-friendly



**Figure 1** YPG’s focus on shaping an age-friendly city (modified from WHO’s Global Age-friendly Cities: A Guide, 2007)

determinants through various tiers of planning instruments (including strategic plan-making, development control and GIC facilities provision), with a vision to foster civic participation among different social groups in the community.

Sham Shui Po District was selected as the focus area of this Study given the fact that this district has been one of the neighbourhoods experiencing deeply the issue of ‘double-ageing’ in Hong Kong, i.e. ageing of people and buildings. According to “Projections of Population Distribution 2018-2026” (Planning Department, 2018b), more than 20% of the Sham Shui Po District population will be aged over 65 in 2026, approaching to a quarter. It is also revealed that more than 40,000 private housing units in the district will be aged more than 70 years by 2046. In this regard, the Study Team conducted desktop research interviews, site visits and community workshop during the 9-month study period to collect relevant data from Sham Shui Po District, which is considered as an indicative case of reference value for the other communities in Hong Kong. Throughout the research process when the latest version of Chapter 3 – Community Facilities of Hong Kong Planning Standards and Guidelines (HKPSG) (Planning Department, 2018a) regarding addition of relevant elderly facilities standards had yet

to be revised, findings of this Study revealed the elderly’s accessibility to services and facilities of their genuine needs and universal designs of indoor and outdoor spaces worth most discussions among urban development professionals. The following paragraphs cover part of the findings from on-site interview and focus group discussion to illustrate some issues observed under the extant planning context.

### Transportation and Walkability – The Fundamental Urban Quality

Accessibility to suitable mode of transport and associated walking environment has always been a critical pre-requisite for the elderly to obtain any type of healthcare and social services. The Study interviewed some local elderly residing in Tai Hang Tung Estate at Sham Shui Po District to understand their daily activity pattern. From the discussion, it is noteworthy that franchised bus, instead of railway, is the preferred transport mode for their daily intra-district and inter-district travel for social activities and healthcare services. The underlying reason is the “point-to-point” nature of bus service that provides ease of access to people with lower physical abilities. Passengers could simply access to bus stops in the vicinity of their residence’s entrance, whereas



the nearest railway station exit connected to long and steep passage in old districts like Sham Shui Po and required long walking inside the station. Despite the extensive coverage of Mass Transit Railway (MTR) network, the elderly also concerned about the walking environment linking the transport service with their residence as well as destination (e.g. healthcare and social service only available in other districts). For instance, one of the interviewees indicated that the cancellation of one of her frequently-used bus routes from Sham Shui Po to Tsuen Wan had caused inconvenience to her daily life, due to the fact that she needed to spend more time to walk through a longer and steep passage for an alternative bus route which also takes extra time for interchange at Mei Foo (Figure 2). Some may argue that the rationalization of bus service is the consequence of emphasis of heavy railway as the public transport backbone in current strategic planning regime. While adjustment of bus service provision is subject to a basket of considerations, it is of relevance for planners to rethink how the contemporary transport planning concept could advance and accommodate the genuine needs of the elderly.



**Figure 2** Steep Passage to the Alternative Bus Route

### Planning beyond Healthcare Service Cluster

Demand for healthcare service is steadily increasing that, apart from quantity and resources to be allocated, planning considerations could take a proactive role to achieve a more balanced geographical distribution of service. Under the imperative of enhancing provision of elderly service and facilities, the Planning Department released the updated HKPSG in December 2018 to include relevant provision standards for elderly facilities by referring to the recommendations



**Figure 3** Ageing in Place Workshop

outlined in the Elderly Services Programme Plan (Elderly Commission, 2017). While the revisions demonstrated the endeavours made by relevant government departments, including the Planning Department and the Social Welfare Department to march towards “Ageing in Place”, public healthcare services provision under the pillar of Community Support and Health Services is another essential aspect deserving attention. Currently, the existing Healthcare Service Cluster is adopted by broad-based provision approach. This implies service units would collectively serve the threshold mass beyond the district they are positioned. Although it is well understood that general clinic could meet the needs of the community, access to distant specialist clinic has been a challenge to the elderly. Some participants in the workshop (Figure 3) indicated that getting specialist consultation (e.g. ophthalmic services) is one of the reasons that they required traveling from Sham Shui Po to Tsuen Wan by bus regularly. Further consideration to incorporate provision standards for specialist clinic could be a direct response to the above issue in the long run. Nonetheless, this could render considerable discussions among various stakeholders (including but not limited to policy makers, planners, healthcare professionals, community concern groups and members from different District Councils). The Government and local non-governmental organizations (NGO) could consider flexible options in the short run, such as expanding the use of mobile clinic for certain specialist services. This could effectively minimize the time and energy of the elderly, especially those who have reduced mobility, spending for transit on a regular basis.



**Figure 4** Communal Facilities at Podium

### Universal Design in Indoor and Outdoor Space

In the interview with a local interior designer advocating elderly-friendly interior design, the designer indicated that retrofitting universal design (e.g. installation of seamless shower tub and hand rail on the walls) in different parts of an apartment are some of the means to prevent the elderly from fatal accidents at home. Nonetheless, the apartment layout was fixed since construction stage, alteration on configuration, especially in the bathroom, to incorporate universal design is usually failed due to the existing configuration (such as insufficient space to accommodate wheelchair) or requires substantial changes in some cases. The Study Team therefore suggests that universal indoor design should be incorporated during detailed design stage to be reflected in general building plans to reserve sufficient space and flexibility for indoor universal design features.

On the other hand, quality and the design of communal and open spaces are equally vital to meet genuine needs of the elderly. Communal and open space provide platforms for all walks of life for social interactions and establishing community network. This is of paramount importance to the elderly in their every day life to feel engaged and connected to the community. The Study team observed in site visits that public housing estates in Sham Shui Po provided spacious communal spaces for their residents for active and passive recreational activities. Some new public housing estates such as the newly completed blocks of Shek Kip Mei Estate co-locate the tower entrance and elderly fitness and recreational facilities at podium, which is one of the major passageways connecting to the neighbourhood



**Figure 5** Ease of Access to Communal Spaces

(Figure 4 and 5). This is a subtle yet considerate idea to encourage more frequent interactions and exercises for senior residents under an all-weather environment. On the contrary, despite provision of extensive communal areas connecting different towers as well as retrofitting of basic elderly fitness facilities, estates completed in the late 20th century like Tai Hang Tung Estate lacked sociability-driven design to facilitate interactions between the members of the neighbourhood. As a case in point, seats and facilities are located discretely at different pockets of public spaces, preventing users from social interactions (Figure 6). To enhance future and existing elderly facilities, planners could promote integrated and flexible design for public spaces of new development projects during planning and design stage in view of enhancing social interaction to facilitate an age-friendly city. For existing neighbourhoods, we encourage planners to engage existing residents and other stakeholders through a district-based engagement mechanism prior to any modification to facilities and design within the communal areas, in order to understand and respond to their needs appropriately and effectively.

### Towards Elderly-friendly Civic Participation and Sustainable Development

Throughout the entire research process, apart from groups of the elderly, the Study team reached out to representatives from different local NGOs which continuously engaging the elderly. The NGOs expressed that the elderly is not easy to keep in touch with current affairs given most information are now uploaded online or on mobile applications. Although local NGOs keep in close contact with the elderly within the neighbourhood, advocating or discussing certain concerns with the elderly is not an easy task. In response to the



**Figure 6** Open Area in Tai Hang Tung Estate

hurdle, a group of NGOs under Sham Shui Po Community Organization Alliance applied funding from Sham Shui Po District Council in 2016 to organize a series of preparatory workshops for their concerned elderly, with the target to deliver two **Community Round-table Forum** in late 2017 (Hong Kong Citizens, 2017). To this end, the NGOs held a series of pre-workshops beforehand to train the elderly with basic self-expression and presentation skills in order to deliver ideas and messages, clearly and convincingly. Different from a conventional consultation forum where District Council (DC) members or government officials are the one managing the engagement, the Community Round-table Forum was instead hosted by the elderly of the neighbourhood and local NGOs and DC members and government officials were attendees. The YPG was attended as an observer. In the forum, the elderly presented their aspirations and proposals on various elderly-friendly policies, and the attending government officials were invited to respond with DC members being the witness (**Figure 7**). All of the issues discussed in the preceding paragraphs were covered in the forum. Throughout the Community Round-table Forum, we understood the elderly were eager to learn and were very capable to absorb new information and knowledge. Presentation skills on presenting constructive ideas and undergoing negotiation were gained rapidly via the preparatory workshops. The Study Team interviewed some elderly participants and the elderly in other districts and revealed that they were eager to carry-on life-long learning to keep themselves connected and socialised. Notwithstanding this, many of them wished to



**Figure 7** Community Round-table Forum in Sham Shui Po

continue serving the society, either on pay or no-pay employment opportunities. As such, when YPG was shaping components for building an age-friendly city, “knowledge and employment” was added on top of WHO’s views.

#### **Role of Planners in Planning for the Aged**

Throughout this research, the YPG observed that there are multiple ways for us to get involved on current issues and to understand the needs of different stakeholders via community engagement. The YPG underwent multiple means to reach out to the elderly, NGOs, professionals and other stakeholders by means of site inspection, interviews, public workshop, etc. The YPG sees the importance of hosting regular community engagement. Personal proactive involvement is highly encouraged; nonetheless, the society requires a role of community planner to bridge different policies/proposals with the general public. For instance, in the aforementioned Community Round-table Forum, discussion were mainly focused on social welfare perspective. While the needs of the elderly on transportation and community and healthcare facilities could be further explored and even enhanced from planning perspective, the lack of community planners<sup>1</sup> in the community engagement mechanism could not deliver such functions during planning and design stage. It is thus worthwhile to explore introducing town planners into the district-based engagement mechanism, either on built environment and acumen on broader social issues. The engagement skillset of town planners would be another valuable asset to drive civic

<sup>1</sup> Community Planner not only designs and directs community engagement programs in implementing policies or development projects but regularly outreaches the general public to understand their genuine needs. Strong presentation skills and negotiation skills with town planning background are some of the pre-requisites.

participation of the elderly on social issues, based on our professional knowledge and judgement as well as our understanding of the community. How community planners get involved in engagements of policies or development projects constantly as well as their roles and duties would deserve more detailed discussions with relevant institutes and departments.

## Conclusion

Hong Kong is experiencing the ‘double-ageing’ trend in our city – ageing of both population and buildings. Planners have been taking a proactive role in promoting the continuous advancement of built environment in Hong Kong in the past decades. Nevertheless, “people” are undoubtedly the invaluable asset that matters to planning work amidst the development process. This Study attempted to reflect on the challenges that the elderly might experience in their daily life, with the purpose to explore some potential planning responses for further discussion. Some extant planning approaches, despite their importance and general applicability, may have some limitations to accommodate the ageing trend. To support the implementation of age-friendly city, we suggested exploring chances of cooperation with NGOs and the Government to smoothen the deficits and enhance the communication with different stakeholders from local perspective; implement barrier-free and universal design widely from indoor to outdoor from district perspective; and provide necessary support to facilitate elderly services to integrate age-friendly components in future development and designs in long run from territorial perspective. It is hoped that this Study could serve as a basis for further discussions on possible planning responses to the ageing phenomenon.

## References

- Census and Statistics Department. (2017). Demographic Trends in Hong Kong 1986 – 2016. Hong Kong: C&SD. Available at <https://www.statistics.gov.hk/pub/B1120017042017XXXXB0100.pdf>.
- Development Bureau. (2016). Towards a Planning Vision and Strategy Transcending 2030. Hong Kong: DEVB.
- Elderly Commission. (2017). Elderly Services Programme Plan. Hong Kong: EC. Available at [https://www.elderlycommission.gov.hk/en/download/library/ESPP\\_Final\\_Report\\_Eng.pdf](https://www.elderlycommission.gov.hk/en/download/library/ESPP_Final_Report_Eng.pdf).
- Planning Department. (2018a). Community Facilities. Hong Kong Planning Standards and Guidelines. Available at [https://www.pland.gov.hk/pland\\_en/tech\\_doc/hkpsg/full/pdf/ch3.pdf](https://www.pland.gov.hk/pland_en/tech_doc/hkpsg/full/pdf/ch3.pdf).
- Planning Department. (2018b). Projections of Population Distribution 2018-2026. Hong Kong: PlanD. Available at [https://www.pland.gov.hk/pland\\_en/info\\_serv/statistic/wgpd18.html](https://www.pland.gov.hk/pland_en/info_serv/statistic/wgpd18.html).
- Hong Kong Citizens. (2017). 社區共識，議會民間——同落實跟進——社區參與圓桌會. Inmedia. Available at <https://www.inmediahk.net/node/1052670a>.
- World Health Organization. (2007). Global Age-friendly Cities: A Guide. Geneva: WHO. Available at [https://www.who.int/ageing/publications/Global\\_age\\_friendly\\_cities\\_Guide\\_English.pdf](https://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf).

## Viewpoints

*“Once you're over the hill, you begin to pick up speed.”  
— Charles Schultz*

# 04

**Viewpoints 觀點**

# Possible Way Forward for Increasing the Supply of Social Welfare Sites and Premises

## 增加社福用地及處所供應的可能進路

**Kar-kan Ling, SBS 凌嘉勤**

Director of Jockey Club Design Institute for Social Innovation and Professor of Practice (Planning),  
Hong Kong Polytechnic University  
香港理工大學賽馬會社會創新設計院總監 實務教授（規劃）



(Please see p.57 for Chinese version  
中文版請見第57頁)

The supply of social welfare sites and premises is perceived by the general public or social welfare counterparts to fall under the realm of land and urban planning. This perception is not incorrect. Yet, I wish to point out that as a pre-requisite to accomplish the concerned tasks, both planners and the Planning Department (PlanD) must secure the collaboration and cooperation of various parties. We also need to view from the perspective of social innovation in opening up our minds, broadening our horizon, triggering collective wisdom, and coordinating

the endeavours and cooperation of different parties with a view to identifying the possible way forward for increasing the supply of social welfare sites and premises.

One of the goals of urban planning is to optimise the use of our finite spatial resources to cater for both current and future societal needs. In this connection, PlanD has two roles to play. First, it coordinates the land use demand of various departments and establish a consensus on the priority for assessing the land use demand for public service facilities including social welfare facilities. Second, to reserve spatial resources (including sites and premises) responding to

societal needs in the planning and development process of land and projects. In this sense, the planning process provides a negotiation platform for various policy bureaux and government departments. It is also the arena for competing the limited spatial resources among various stakeholders.

#### **Presetting clear quantitative indicators**

In reality, the concept of “societal needs” has no absolute definition or benchmark. From the eyes of the policy bureaux and government departments demanding the sites or premises, their responsibility is merely to succeed in the quest for spatial resources with a view to constructing facilities and providing services for the “societal needs” within their policy areas. In the planning process, whether the bureaux or departments could successfully fight for their concerned spatial resources would hinge on the strength of their justifications and policy support.

The Hong Kong Planning Standards and Guidelines (HKPSG) has provided the quantitative indicators for many public service facilities, viz. the population-based requirements for the provision of relevant public service facilities. Imagining a planning process with more than one departments lodging land use requests, the one securing more detailed and clear justifications would have an edge. For example, in the latest version of HKPSG, the requirement of providing one local centre for the elderly for every 170 000 people has been added. As such, the District Planning Officers of PlanD would be conversant with the requirement, which could in turn facilitate them to proactively provide for such facility when opportunities arise in the course of carrying out their regular district planning duties. This would also serve to remind the departments to uphold their responsibilities of implementing their preset quantitative indicators. In the planning process, the Social Welfare Department (SWD) could use population figures as the thresholds bidding for cogently required spatial resources.

#### **Advance planning to minimise local resistance**

Nevertheless, the inclusion of preset quantitative indicators in HKPSG does not imply that all the

valves in planning for social welfare premises would be soothed. One of the hurdles is the “Not in My Backyard - NIMBY Syndrome”. We must acknowledge that for some kinds of social welfare facilities such as halfway houses for the rehab and ex-mentally ill persons, some members of the community would raise strong objections out of their worries. It is certainly difficult to introduce these facilities in a neighbourhood as addressing the NIMBY Syndrome is not easy. Residents’ concerns about the NIMBY effects of social welfare facilities are actually originated more from their psychological concerns instead of tangible implications. It is important to patiently explain to those with a NIMBY mindset so as to promote a rational exchange and facilitate improvement measures rather than giving in without any grounds.

A better way is to reserve space for these more sensitive facilities in planning for larger scale residential estates and to integrate these facilities into the master plan through design measures. By doing so, the residents would be well aware of the existence of such facilities before purchasing or moving into their residential apartments. The premises of these facilities would be suitably segregated from the daily activity spaces of the residents. Such approach may make these facilities more likely be acceptable to the neighbourhood. To achieve this, the type, scale, special requirements, and financial support at the construction and operational stages of the required facilities would have to be ascertained at the early planning stage of the project.

#### **Flexible use of “clustering” and “dispersing” spatial models**

Social welfare services are mainly provided at the neighbourhood and community levels. These facilities should be easily accessible to the service users or the communities. Nevertheless, the scale of individual premises may not justify the construction of a standalone building. The provision of these facilities should thus flexibly apply the “clustering” and “dispersing” spatial models.

The “clustering” spatial model is to assemble various social welfare services and accommodate

them in a government complex. In accordance with the "single site, multiple use" principle, it is inevitable for the facilities in the service complex to involve various government departments as well as different services and facilities. The Government Property Agency would coordinate with the relevant departments to set the policy priority, schedule the resource allocation, consult the public, and resolve the complicated design requirements. The process is time consuming and susceptible to complaints about the sluggish progress. The siting of this type of service complex would usually undergo a stringent planning study. The selected site is often located at the node of the patron population, accessible through public transport and has good pedestrian flow in the vicinity. Once built, it would usually become the landmark of the district capable of providing suitable services to the public, and is generally popular with the communities.

Social welfare facilities could also be accommodated in different parts of a commercial complex or the lower levels of public and private housing estates by means of the "dispersing" spatial model. This could expand the overall coverage of the social welfare facilities. In urban areas where suitable government land is lacking, we would often need to capitalise on large-scale redevelopment projects or land sale opportunities to incorporate the requirement for the provision of social welfare premises in the planning conditions or land sale conditions. However, there would be an intervening period of several years before project completion. A more viable way to provide the facilities in the short term is to rent or buy the existing premises. In the 2019-20 Financial Budget, the Financial Secretary announced the reservation of 20 billion dollars for the Labour and Welfare Bureau and the SWD to purchase 60 properties for the provision of more than 130 social welfare facilities. This shows the determination of the Government in addressing the shortage of social welfare facilities, which is praise worthy and deserves support.

No matter whether it is the "clustering" or

"dispersion" spatial model, fire safety requirements are often the major constraints. For example, according to the Child Care Services Regulations, child care centres for children under two should be located at a height of not more than 12 metres above ground level; and not more than 24 metres above ground for child care centres for children above two; and all types of elderly centres and day care centres for the elderly should not be situated more than 24 metres above ground<sup>1</sup>. In addition, the requirements for providing parking and loading/unloading spaces would also pose constraints on the site selection of various types of social welfare facilities. While both "clustering" and "dispersing" spatial models are comparable in terms of advantages and disadvantages, it is most important for the relevant government departments to effectively coordinate and strengthen cooperation to optimise the site potential and reap the opportunities.

### **Create a 5% potential from public housing**

The available spatial resources for development in Hong Kong would be in very tight supply for a prolonged period of time in the foreseeable future, and a huge supply gap is envisaged for social welfare facilities, particularly for all types of residential care homes due to the rapid ageing population. We need a social innovation mindset to think out of the box and garner sustainable social resources to face this onerous challenge.

First of all, let's take a look at some of the prevailing practices in the residential development projects. To encourage private residential developers to provide recreational facilities such as clubhouses, gyms, multi-purpose rooms, etc. solely for residents' use, the floor area of these facilities could be exempted from the gross floor area (GFA) calculation, with a maximum allowable exemption of 5% of the total domestic GFA<sup>2</sup>. Under this policy, most private residential developers are willing to incorporate recreational facilities in the development package. This would not affect the saleable total GFA, but could boost the attractiveness of the development

<sup>1</sup> HKPSG, Chapter 3: Community Facilities [https://www.pland.gov.hk/pland\\_tc/tech\\_doc/hkpsg/full/pdf/ch3.pdf](https://www.pland.gov.hk/pland_tc/tech_doc/hkpsg/full/pdf/ch3.pdf)

<sup>2</sup> [www.bd.gov.hk/doc/en/resources/codes-and-references/practice-notes-and-circular-letters/pnap/APP/APP104.pdf](http://www.bd.gov.hk/doc/en/resources/codes-and-references/practice-notes-and-circular-letters/pnap/APP/APP104.pdf)

Lands Department Practice Note 4/2000(B): Recreational Facilities in Residential Development <https://www.landsd.gov.hk/en/legco/lpn.htm>

Buildings Department, Lands Department and Planning Department Joint Practice Note No.4: Development Control Parameters <https://www.landsd.gov.hk/en/legco/jpn.htm>



to the buyers. From the perspective of district planning, this would not only increase the supply of recreational facilities but would also enhance the living quality of the residents. Through co-using the recreational facilities, social cohesion could also be fostered in the neighbourhood. The policy has been implemented for nearly 20 years, and the relevant departments have been carefully vetting every individual case to guard against abuse. It has not induced any adverse impacts on urban and property development, and is considered a benevolent policy.

If private residential developments under the prevailing development control policy could obtain a maximum exemption of 5% of the total GFA for the provision of ancillary recreational facilities, for the sake of public interest, should the Government consider formulating a policy to require the allocation of a maximum 5% of the total GFA for the use of social welfare facilities in public housing? My answer is affirmative, and it is also technically feasible.

The policy has four major merits: (1) there would be steady and more sustainable supply of social welfare premises with the progressive completion of public housing development; (2) public housing development is generally accessible and conveniently served by public transport, and the estates usually have more spacious public spaces to share with users of the social welfare premises; (3) early planning would allow new residents to anticipate the existence of certain types of social welfare premises for easing the NIMBY resistance; and (4) it could create jobs for residents nearby, releasing the employment potential of women and the retired. This would not only increase their family income but also alleviate labour shortage in elderly homes. The policy could hit several birds with one stone and create a win-win scenario for various parties.

In terms of statutory planning, the public housing sites are usually included in the “Residential (Group A)” (“R(A)”) zones. According to the Master Schedule of Notes to Statutory Plans, “social welfare facility” is regarded as a “use always permitted” under this zone<sup>3</sup>. “Social welfare facility” includes social welfare premises

for “boys’/girls’ home, residential care home for the elderly, residential home for people with disabilities, drug treatment and rehabilitation centre, halfway house, long stay care home, centre for community support services for elders, child care centre, children and youth centre, community centre, counselling centre for drug abusers, rehabilitation centre for offenders, day activity centre, sheltered workshop, social and recreational centre for the disables, etc.”<sup>4</sup>.

Due to the wide ranging uses covered, it would be more complicated to include social welfare premises in new public housing estates as compared to incorporating recreational facilities in private residential redevelopment, especially at the initial planning stage when the ultimate use of the social welfare premises could not be determined. Yet, we could use the elderly caring home requirements as the bench-mark planning and design requirement to maximise the spatial flexibility for the ultimate uses to be decided. It would take at least two to three years to move from the initial planning stage of a public housing development to the stage of detailed technical assessment, building design, and then works commencement. During this period, the concerned social welfare department should have ample time to decide on which types of facilities to be included in the social welfare premises.

With the policy of allowing a maximum of 5% GFA for social welfare premises, at the initial planning stage of public housing projects, the relevant departments would no longer need to spend time in arguing on whether social welfare facilities should be included. Instead, they could focus on formulating the most suitable planning and design scheme to accommodate this essential 5% provision even though the exact type of social welfare facilities cannot be determined at the early planning stage of the development project. This is challenging task but I am fully confident of the expertise of our urban planners and architects. As long as we have a lucid policy and set a clear goal, they would certainly be able to accomplish the tasks.

The Government would also need to consider the implementation mechanism of this “5%”, whether

<sup>3</sup> Town Planning Board (TPB). Master Schedule of Notes (MSN). [https://www.info.gov.hk/tpb/tc/forms/master\\_schedule.html](https://www.info.gov.hk/tpb/tc/forms/master_schedule.html)

<sup>4</sup> TPB MSN. Definition of Terms. [https://www.info.gov.hk/tpb/tc/forms/dot\\_revised\\_broad.html](https://www.info.gov.hk/tpb/tc/forms/dot_revised_broad.html)

it would be a development control policy by means of an exemption from the total GFA calculation (similar to the exemption of ancillary recreational facilities in private residential developments) or by means of an application for the additional “5%” in accordance with section 16 of the Town Planning Ordinance (if a maximum total GFA restriction is stipulated for the concerned “R(A)” zones on the statutory plans). The detailed implementation mechanism could be carefully deliberated and decided by the relevant bureaux/departments.

Lastly, the Government should make a policy commitment and allocate adequate financial resources to provide for the additional construction costs induced by this “5%”, thereby relieving the financial burden of the authorities tasked to build public housing.

### Conclusion

I have recently been invited to join the Standing Committee of Social Welfare Facility Development of the Hong Kong Council of Social Service. I am touched by the passion of the social welfare counterparts in serving the public and the needy. I also sympathise with their helplessness and anxiety in face of the severe shortage in the supply of social welfare premises.

During my exchange with the social welfare counterparts, I have shared some of my planning experiences and suggested the above “5%” policy from the social innovation perspective with a view to optimising the land resources allocated for public housing development and progressively tackling the root problem in the supply of social welfare premises. This could help our social welfare colleagues focus their resources and expertise on the provision of social welfare services, and alleviate their disturbance and destitution engendered by inadequate spatial resources.

This “5%” policy initiative will induce a lot of technical, policy and political problems that would need to be resolved. However, problems should not become excuses to maintain the status quo and against any change. Instead, it should become the drive to seek possible way forward for the benefit of the community. In the

course of resolving the problems and ironing out the obstacles, we can put social innovation into action, nurture the ability to think out of the box, consolidate determination and perseverance, and let more people become social innovators.

### Acknowledgement:

The abridged Chinese version of the article was published in the Hong Kong Council of Social Service’s Policy Bulletin (26th Issue, June 2019)

The author wishes to thank Ms. Margaret Chan (MHKIP) for her contribution and assistance in editing the English version of the article for publication in HKIP Journal “Planning and Development”



社福用地和處所的提供，給予一般人或社福同工的印象，是屬於土地及城市規劃工作的範疇。這個印象沒有錯。但筆者希望指出的，是規劃師及規劃署必須得到各方面的配合和合作，才能做好這方面的工作。我們也要從社會創新的角度，開拓思維、擴寬視野，啟動集體智慧，協調各方努力和合作，才能找到增加社福用地及處所供應的可能進路。

城市規劃其中一個目標，便是善用有限的空間資源，去滿足各項現時及未來的社會需要。規劃署主要發揮兩大作用，一是協調各部門的用地需要和建立優次共識，以評估包括社福設施在內的公共服務設施的土地需求；二是在土地開發和發展項目的規劃過程中預留空間資源(包括用地和處所)以回應社會的需要。規劃過程既是各政策局和政府部門的協商場所，也同時是各持份者競逐有限空間資源的角力場。

### 預設明確量性指標

現實上「社會需要」這概念並無絕對定義或基準。在各要求用地或處所的政策局和部門眼中，他們的責任就是要成功取得空間資源，用以建造設施和提供服務回應「社會需要」。在規劃過程中，局或部門能否成功爭取相關的空間資源，與他們所能憑藉的理據

及政策支持力度有著很大關係。

《香港規劃標準與準則》為很多公共服務設施訂立了量性指標，即是按人口數目提供相應公共服務設施的要求。試想像一下在規劃過程中，有多於一個部門提出用地要求，部門手握愈具體清晰的憑據，其處境則愈為有利。例如最新修訂的《香港規劃標準與準則》加入了每17萬名人口就要設置1間長者地區中心的要求。這樣，規劃署各區的規劃專員便能較為心中有數，在日常的地區規劃工作中便可以較主動地為這類設施尋找機遇，也可以提醒各部門有責任落實文件中的預設量性指標，而社署在規劃過程中，就可以利用人口數目作為標準提出要求，更有力地爭取需要的空間資源。

### 超前籌劃減低地區反對

不過，即使在《香港規劃標準與準則》加入預設量性指標，不代表就能打通社福處所用地規劃的所有關節。其中一個難題便是「避鄰效應症候群」(Not In My Backyard - NIMBY Syndrome)。我們必須承認，有些社福設施，如更新人士或精神病康復者的中途宿舍等，確會引起部分社區人士擔憂而提出強烈反對。在現有鄰舍內加設這類設施確有難度，要克服「避鄰效應症候群」確是難關處處，並不容易。居民對一些社福設施的

NIMBY反應，其實是出於心理擔憂多於實質影響。對NIMBY心態要耐心解釋，鼓勵理性交流，可協調改善，但不能無原則退讓。

較佳的做法便是在規劃發展較大規模的屋苑時，預留空間容納這類較敏感的設施，並利用設計技巧把這類設施融合在發展總綱圖(Master Plan)內。這樣，居民在購買或遷入相關住宅單位前，便已知悉這類設施的存在，而這類設施的處所與居民日常活動空間既有合理分隔，也有巧妙的融合，他們便會較易接受。要做到這個成果，在發展項目的早期規劃階段，便須確定所需設施的種類、規模、特殊設計要求，和該設施在興建階段和操作階段的財政支持。

### 靈活運用「集中」與「分散」空間模式

社福服務多數在鄰舍層面及社區層面提供，設施應位於服務使用者或社區人士能夠便捷到達的地點，個別處所的規模未必需要動輒興建一幢獨立建築物。有關設施的配置，應該彈性運用「集中」與「分散」的空間模式。

「集中」的空間模式，便是把多項社福設施集中容納在一幢綜合政府服務大樓內。按「一地多用」善用空間資源的原則，服務大樓的設施不可避免要牽涉多個政府部門，多項服務設施。政府產業署往往要協調各部門的政策優次，資源調配的時序，亦要諮詢民意，理順複雜的建築設計要求，過程需時甚久，常被埋怨進度緩慢。這類服務大樓的選址會經過嚴謹的規劃研究，其位置多處於服務人口的地理中心點，有便利的公共交通，附近人流暢旺，一經建成往往成為當區的地標，能為市民提供適切的服務，一般來說也廣受市民歡迎。

社福設施也能以「分散」的空間模式容納在社區不同角落的商場、公營和私人屋苑的低層，這可擴大社福設施的整體覆蓋範圍。在城市建成區常欠缺恰當的政府用地，往往便要掌握較大規模的重建項目或政府賣地的機會，在規劃申請或賣地條款中列明提供社福處所的要求，但這要等待項目完成，會有好

幾年的時間差。較能在短期取得成果的方法，便是租用或購買現成的物業。財政司司長在2019-20年度財政預算案中公佈預留200億予勞福局和社署購置60個物業，供營辦130多項社福設施，這可見政府解決社福設施不足的決心，值得讚賞與支持。

無論是「集中」與「分散」的空間模式，消防安全規定往往成為主要制約，例如根據《幼兒服務規例》，為兩歲以下兒童提供服務的幼兒中心不得距離地面超過12米，而為兩歲或以上兒童提供服務的幼兒中心則不得距離地面超過24米；各類長者中心和長者日間護理中心/安老院舍不應距離地面超過24米<sup>1</sup>。再加上泊車位和上落客貨位置的要求等，都對不同類型的社福設施選址構成一定限制。「集中」與「分散」空間模式之間並沒有優劣之分，最重要是政府相關部門要有效協調，加強合作，因地制宜，掌握機遇。

### 創造來自公營房屋5%的潛力

香港可供發展之用的空間資源，在未來相當長的日子裏都會非常緊絀，而社福設施的供應，特別是因人口急速老化的趨勢，各類院舍都有巨大的供應缺口。我們需要社會創新的思維，尋求突破，發掘可持續的社會資源應對這個艱難的挑戰。

首先，讓我們看看現時住宅項目的一些做法。為鼓勵私人住宅發展商向住戶提供康樂設施，例如只供住戶使用的會所、健身室、多用途室等，這些設施的面積可獲豁免計算在總樓面面積內，最多可寬免的面積為住用總樓面面積的5%<sup>2</sup>。在此政策下，私人住宅發展商大多樂意在屋苑設計上加入康樂設施，這既不影響可出售的總樓面面積，又可以增加對買家的吸收力。從社區規劃的角度來看，此舉不但可增加康樂設施的供應，提升居民的生活質素，亦可透過鄰里之間共享康樂設施，提升社區凝聚力。這項政策已經實施了近20年，相關部門都以謹慎的態度審核每宗豁免個案，不容濫用，因而對城市及物業發展並沒有產生不良影響，堪稱德政。

如果私人住宅發展項目在目前的發展管制政

<sup>1</sup> 《香港規劃標準與準則》第三章：社區設施 [https://www.pland.gov.hk/pland\\_tc/tech\\_doc/hkpsg/full/pdf/ch3.pdf](https://www.pland.gov.hk/pland_tc/tech_doc/hkpsg/full/pdf/ch3.pdf)

<sup>2</sup> Buildings Department PNAP APP-104 Exclusion of Floor Area for Recreation Use <https://www.bd.gov.hk/doc/en/resources/codes-and-references/practice-notes-and-circular-letters/pnap/APP/APP104.pdf>  
Lands Department Practice Note 4/2000(B): Recreational Facilities in Residential Development <https://www.landsd.gov.hk/en/legco/lpn.htm>  
Buildings Department, Lands Department and Planning Department Joint Practice Note No.4: Development Control Parameters <https://www.landsd.gov.hk/en/legco/jpn.htm>

策下，能讓附屬康樂設施取得最多5%總樓面面積豁免，那麼基於公眾利益，政府應不應該考慮制訂政策規定在公營屋邨的總樓面面積上，再加最多5%樓面面積撥作社福設施用途呢？筆者的答案是應該，而且技術上可行。

這項政策有四大好處：主要是社福處所會隨著公營房屋陸續落成而有穩定和較大量的持續供應；二是公營屋邨一般都有方便的公共交通服務，屋邨內有比較寬裕的公共空間可以和社福處所的使用者共享；三是及早籌劃，讓新遷入居民預早知道某類社福設施的存在，可減低NIMBY阻力；四是能為屋邨住戶創造就近的工作機會，釋放在家婦女和退休人士的勞動力，既可增加他們的家庭入息，也可舒緩院舍的服務人手短缺。這可以是一舉多得，多方皆贏的政策。

在法定規劃層面，公營屋邨的地盤一般會被包括在「住宅用途(甲類)」(“R(A)”)的法定土地用途分區之內，按法定圖則註釋表，在此用途分區內「社會福利設施」是「經常准許的用途」<sup>3</sup>。而「社會福利設施」則「包括男/女童院、安老院、殘疾人士住宿院舍、戒毒治療及康復中心、中途宿舍、長期護理院、老人社區支援服務中心、幼兒中心、兒童及青年中心、社區中心、濫用藥物者輔導中心、違法者自新服務中心、展能中心、殘疾人士庇護工場、殘疾人士社交及康樂中心等」<sup>4</sup>等社福處所。

因涉及的種類非常廣泛，在新的公營屋邨內容納社福處所，比在私人屋苑內設置康樂設施要複雜得多，特別是在規劃初期，社福處所的最終用途可能仍未能決定。但是，我們能以安老住宿院舍的使用要求作為規劃及設計基準，這便能為最終的決定用途提供最大的空間彈性。一個公營屋邨由初期規劃階段，到進行詳細技術評估、建築設計，再到破土動工，快者往往涉時二、三年。在這時段內，社福部門應有充裕時間，決定該社福處所應用作那一類的社福設施了。

有了這個最多5%總樓面面積用作社福處所的政策，在公營屋邨項目的初期規劃階段，相關部門便不用再花時間爭議要不要容納和要容納哪類社福設施，反而可以聚焦為這必定要提供的「5%」做出最恰當的規劃和設計。

筆者對我們的城市規劃師和建築師的專業能力滿有信心，只要政策清晰，目標明確，他們一定可以完成任務。

政府還要考慮這「5%」的處理辦法，是用發展管制政策豁免計算在總樓面面積內(類似豁免私人住宅項目的附屬康樂設施)，還是根據《城市規劃條例》第16條申請增加這「5%」(如果法定圖則有對相關的R(A)地盤訂明最高樓面面積的管制)。具體的處理方法可由相關的局、署詳細考慮。

最後，政府亦應該作出政策承諾和財政撥備，全面承擔這「5%」引致的額外建築開支，減輕公營屋邨建造機構的財政負擔。

## 總結

筆者最近被邀加入香港社會服務聯會的社福設施發展常設委員會，深感社福同工服務大眾，扶助貧弱的熱誠。筆者也對他們因社福處所供應嚴重不足而產生的無奈和焦慮，感同身受。

筆者與社福同工的交流中，分享了一些規劃工作的經驗，也從社會創新的角度，提出了上述「5%」的政策建議，希望能善用撥給公營屋邨的土地資源，較根本地逐步解決社福處所的供應問題，讓社福同工能把他們的專業資源和才幹，聚焦於提供社會服務，減低空間資源不足對他們帶來的困擾和無奈。

這「5%」的政策建議，必然會引出大量需要解決的技術、政策、政治考量等難題。但難題不是原地踏步的藉口，反而是尋找解決辦法的動力。在解決問題、克服困難的過程中，我們能以社會創新的實踐，培育破格思維的能力，凝聚迎難而上的決心，讓更多人成為社會創新的行動者。

<sup>3</sup> 城市規劃委員會法定圖則註釋總表 [https://www.info.gov.hk/tpb/tc/forms/master\\_schedule.html](https://www.info.gov.hk/tpb/tc/forms/master_schedule.html)

<sup>4</sup> 城市規劃委員會法定圖則註釋詞彙釋義 [https://www.info.gov.hk/tpb/tc/forms/dot\\_revised\\_broad.html](https://www.info.gov.hk/tpb/tc/forms/dot_revised_broad.html)

## News

*“Wrinkles should merely indicate where smiles have been.”*  
— Mark Twain

# 05

## **Introduction of Honorary Member**

# **Mr. Stanley Wong Yuen-fai**

## **Hong Kong Institute of Planners Honorary Member 2018**

*The following Citation was read by Professor Jimmy C. F. Leung, Adjunct Professor, Department of Geography and Resource Management, the Chinese University of Hong Kong and the former Director of Planning, on 28 November 2018 at the HKIP Annual Dinner.*



Madame President, distinguished guests, ladies and gentlemen:

It is my great pleasure to represent the HKIP Council in introducing to you Mr. Stanley Wong Yuen-fai, the Honorary Member elected by the HKIP Council this year in recognition of his contributions to the town planning and related fields in Hong Kong.

Stanley is very active in a wide range of public and community services. Recently, he has taken up the most challenging task to be the Chairman of the Task Force on Land Supply, which was tasked, I quote, to 'achieve the broadest consensus and draw up a broad framework of recommendations on the overall land supply strategy and a prioritization of different land supply options for submission to the Government'. Under his leadership, the Task Force, of which I am a member, has completed

an extensive five-month public engagement exercise in September 2018, conducting over 180 public engagement events, including public forums, roving exhibitions, workshops, interviews, seminars, school and youth outreach activities. Stanley joined most of the activities, explained the various land supply options and engaged in face-to-face dialogue with the public and stakeholders to gauge their views. His devotion and whole-hearted commitment are highly appreciated by different sectors of the community, no matter what views they have on the land supply options and other land supply matters. The task ahead, which is to consolidate the tens of thousands of views collected from various channels and in different forms, is another nightmare. Under the capable leadership of Stanley, the Task Force will be able to conduct a comprehensive analysis on the views received and submit a recommendation report to the Government.

To our planning profession, Stanley is an old friend. He is the record keeper for serving the Town Planning Board for 12 years, six years as a member and six years as a Vice-chairman. During his term, the most unforgettable event is the 45-day meetings to hear the representations and comments on the Fanling North and Kwu Tung North Outline Zoning Plans which were prepared to provide statutory planning control for the future development of the North East New Territories New Development Area. The proposals were controversial, with a record-breaking number of representations and comments received. He attended all the hearing sessions, carefully listened to the views of those making representations and comments, and made enquiries to the government departments on various areas of concern. His contribution to the public consultation and plan-making process was remarkable.

Stanley is also a member of the Hong Kong Housing Authority and the Chairman of its Subsidized Housing Committee, and the Chairman of the Advisory Council on the Environment, providing valuable advice to the Government on housing and environmental matters. His other notable services include being the Chairman of the Museum Advisory Committee, a member of the Housing Society, a member of the Post-service Employment of Civil Servants, and the Non-executive Director of the Urban Renewal Authority, not to mention his past services to many other boards and committees.

Stanley holds a Master's Degree in Applied Finance from the Macquarie University, Australia and a Master's Degree in Arts from the Chinese University of Hong Kong, and is a fellow member of the Hong Kong Institute of Bankers. Stanley started his banking career in 1974 with Standard Chartered Bank. He became the Treasurer of Standard Chartered Bank in 1991, the Regional Treasurer of North East Asia in 1995, and eventually the Chief Executive Officer of Standard Chartered Bank's China operations from 2001 to 2003. He later joined Industrial and Commercial Bank of China (Asia) Limited as Executive Director and Deputy General Manager in 2004 until his retirement in 2011.

Stanley was appointed a Justice of the Peace by the Government of Hong Kong Special Administrative Region in 2007, and was awarded the Silver Bauhinia Star Award in 2013 for his distinguished services to the community.

In recognition of Stanley's significant contribution to town planning, housing, urban renewal, environment and other related fields, the Council has elected Mr. Stanley Wong Yuen-fai as an Honorary Member of HKIP.

Ladies and Gentlemen, let us welcome Mr. Stanley Wong to the stage.



**HKIP Awards 2018 - Silver Award**

# Hung Fuk Estate • Harmony for Everyone –

## Integrated Rural and Urban Living Starts with People-oriented Planning

Housing Department, HKSAR Government



The project team of Hung Fuk Estate as a pioneer project in the Hung Shiu Kiu New Development Area, endeavoured to **put people first**, balance the interests of different stakeholders and turn challenges into opportunities. Through this commitment, Hung Fuk Estate showcases transformation from rural habitation to a sustainable and distinctive community well received by residents, locals and recognised by various professional bodies.

The development aims to create a **place with its own identity** while providing a sense of continuity for the indigenous villagers, visitors and future generations. Elements of **local heritage** was manifested in different aspects of the development. The scale of the development is

carefully formulated to **optimise** the site potential and synchronise with the rural surroundings. At the micro level, a new **local activity hub** which improves connectivity of the local area and provides all the conveniences of modern living in a relatively remote area, is created. We plan the development to meet the needs of people with different ages and design communal spaces to **promote sense of belonging, well-being and sustainable living**.

Hung Fuk Estate is a place that celebrates the past, a place that people enjoy to stay and a place that will last. We are proud to witness some 4,900 families residing in a harmonious community of a new town.

## **HKIP Awards 2018 - Silver Award**

# **Exhibiting Nature –**

# **The “GREAT” Home**

## **Mount Pavilia, Clear Water Bay, Sai Kung**

**New World Development Company Limited**

**Ove Arup & Partners Hong Kong Limited**

**Wong Tung and Partners Limited**

**AXXA Group Limited**



Mount Pavilia is embraced by uniquely blessed nature character, situated at Clearwater Bay, Sai Kung, the “Back Garden of Hong Kong”. The Site, with an area of about 6.68ha, has been zoned as a “Comprehensive Development Area” (“CDA”) on the Clear Water Bay Peninsula North OZP, which the Master Layout Plan was then approved with conditions by the Town Planning Board in 2004. It has been developed over years with enormous endeavors in overcoming hurdles in planning and design, with additional efforts to fulfill low-rise development in connection with greening, resources regeneration, neighborhood engagement, artisanal lifestyle and eventually nature, bringing an extraordinary home experiences, with hopes of creating a “GREAT” Home for all.

**Green at Heart** – with the concept of “Living in Nature”, approximately 50% of the site area is covered by landscaping, composing of more than 1,000 trees and 300,000 shrubs, with more than 235 species on site.

**Resources Regeneration** – 30 sustainability measures are in place, encompassing regenerative resources from sunlight, wind, water, waste etc. to achieve green saving targets against local good practice.

**Engaged Neighborhood** – White Yard Gallery is tailor-made to welcome and share with the neighborhood with exhibitions, retail and values. Being a good neighbor, numerous measures are in place to respect and enhance the living of the neighboring Tai Po Tsai Village and Clear Water Bay area.

**Artisanal Lifestyle** – introduces “Sculpture Park Living” concept, by incorporating a number of bespoke art sculpture pieces theming “Home & Family” and children play area.

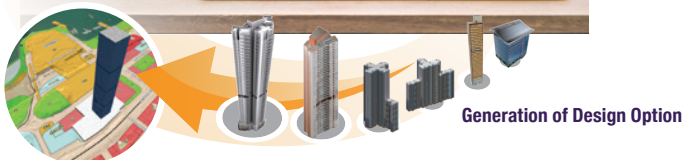
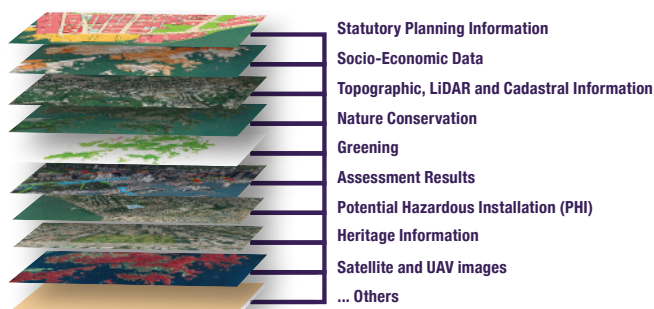
**To the Nature** – the layout has adhered to the concept of embedding in the nature, bask in the garden and respecting and exhibit the nature. Residents are promoted with the concept “farm to table” by encouraging them to participate and consume in urban farm and the highlighted aquaponics pond, the largest of its type in Hong Kong.

Mount Pavilia has attained far beyond the requirements and comprehensiveness of a “CDA” site and is an exemplar for “Green Planning” to other developments in Hong Kong.

## HKIP Awards 2018 - Certificate of Merits

# 3D Planning and Design System – A Smart Planning Tool

Planning Department, HKSAR Government



Hong Kong is a world-known compact and high-density city. Simply reading through the 2D maps is far from enough for town planners to comprehend Hong Kong thoroughly. At the cutting edge of 3D urban planning, 3D photo-realistic models would allow for clarity and precision for the purposes of design, building and developing. Against this background, a smart planning tool – “3D Planning and Design System” (the System) leveraging the latest innovation and enabling technology to enhance smart planning work has been developed in 2018.

The System is a one-stop integrated web-based application with 3D capabilities to provide a common platform for different professionals to access and visualize required information in 2D/3D environment, namely statutory planning

information, population projections, GIC facilities, broad land utilisation information, satellite imagery, 3D and Building Information Modelling (BIM) models, etc. Apart from the information integration, the System has developed an application engine to enable easy generation of initial design scheme for scenario testing and comparison to facilitate planning work. The System is also capable of performing different urban design analyses such as sightline, viewshed and ridgeline analyses, etc. to assess the impacts of the design scheme on the surrounding environment, and generate flythrough simulation for a better visualization of the proposed schemes. The findings of these analyses will expedite the planning decision-making process.

## HKIP Awards 2018 - Certificate of Merits

# Sha Po Fairyland –

## A Pioneer Integration of Wetland Conservation with Residential Development in Hong Kong

Llewellyn-Davies Hong Kong Limited



### An Overview of the Project

Sha Po Fairyland, a successfully restored and enhanced wetland habitat within a residential development in Sha Po, Yuen Long, in proximity to the Deep Bay Area, is the **largest and first-of-its-kind wetland conservation cum residential development project** in Hong Kong that was completed in 2016. As large as 7 hectares, equivalent to about **half the size of Kowloon Park**, Sha Po Fairyland truly lives up to the green planning objectives to achieving a **sense of co-existence** between wetland habitats and residential use, with committed **long-term management and maintenance** under the residential development. Having high educational and research value, **guided tours with the aim of heightening public awareness** on wetland conservation are also organized for residents and the public by appointments. It has become an ideal place for leisure outings and field trips for residents and the public, and, at the same time, a haven for many migratory birds and many other species. It is now home to **over 170 species** (including Four-spot Midget which is classified as Near Threatened species).

### Role of Planners in the Project

The subject site is zoned as “Comprehensive Development Area” on the statutory plan of Kam Tin North for residential development in view of the enhanced infrastructural support and accessibility in the area. A team of planners, together with architects, ecology specialists, landscape architects and other technical experts, formulated a Master Layout Plan (MLP) in support of a comprehensive residential development with an Ecological Enhancement Area (EEA), G/IC facilities, open space and landscaped area etc. at the subject site. The project aimed at **enhancing the ecosystem with increased carrying capacity and diversities of habitats through the EEA** to complement that in the wider Deep Bay Area.

At inception stage, the ecology specialists drew up the **ecological restoration plan as a framework** for incorporation in the MLP. Taking into account the ecological restoration plan, as well as the site and its surrounding context, the planners identified the constrained areas and advised the architects and landscape architects the **required planning, urban design and landscape features**



for integration of the wetland habitats with the residential development, in an **appropriate development intensity and building profile** compatible with the surrounding area, throughout the formulation of the MLP. Some of the key planning and design principles that have been successfully applied include **careful disposition and orientation of building blocks** to minimize potential light sources facing the wetland habitats, **provision of building separations** to respect birds' flight paths, integration of the wetland habitats with the residential development through **open landscape features** such as reeds as a **natural landscape buffer**, etc.

The approval of the MLP and implementation of the project was an iterative process, during which the MLP had been amended to take into account the comments from different Government departments and updated technical requirements. The planners had **made continuous positive responses** to evolving requirements of different technical aspects (including an increase of the wetland area, refinement to the building profile, and provision of more building separations). The planners had **closely guided the project team** during the process to refine the MLP in a co-

ordinated manner. The latest MLP was approved in 2012 and the restored and enhanced wetland habitat was completed in 2016. The successful delivery of this project has clearly demonstrated that integration of wetland conservation with residential development is **not just a planning theory**, but is a **living showcase of green planning in reality**.

In particular, a successful mechanism has been established under the land grant to ensure the long-term management and maintenance of the wetland habitats under the development. It sets a **good example of practical measures** that the planning profession and other disciplines could follow in other projects with wetland conservation. It also brings greater social benefits to residents and the wider community by **engaging residents and the public in wetland conservation education** through guided tours in Sha Po Fairyland, such that long-term sustainability of the wetland habitats can be ensured. **Technical visits for professional groups** (including HKIP) have also been / will also be organised to share the experience in successful delivery of this project.

## HKIP Awards 2018 - Certificate of Merits

# Market Development

## in Sham Shui Po:

### A Model for Community Planning Implementation in Hong Kong

**Kwok Sin Kit, Kate; Cheung Ho Wing, Louis; Wong Cho Ting, Jovial;  
Kan Ka Ho, Calvin; Wong Hon Yip; Chan Hiu Yam, Sharon;  
Chung Wing Yi, Vanessa**

**Concern Group for Sham Shui Po Daytime Market (深水埗見光墟關注組)**

**CSSA Alliance (關注綜援低收入聯盟)**

**重現街道熟食文化關注組**

**StrEAT (响道食熟食墟市計劃)**



Organized by various NGOs and hawkers from Midnight Markets (午夜墟) and Dawn Markets (天光墟), the pilot scheme of Daytime market in Sham Shui Po is the first grassroots market formed under a bottom-up community planning process in Hong Kong. The successful implementation of the Daytime market has led to the revival of diverse markets in the district, bringing about social benefits including:

- Boosting community economy by offering alternative business opportunities with low entry threshold ;
- Revitalizing underutilized public spaces;
- Paving the way for future collaboration in local communities; and
- Setting a precedent on community planning for other districts to follow.

#### Collaboration between Planners and NGOs to Deliver Community Development Projects

Combining efforts from the community front (community organization and trust building) and the planning front (professional inputs from planners) in this project, it is a rare example of the successful implementation of a community plan. Continuous communication and professional support throughout the planning process were two indispensable factors in project delivery.



創建優質居所  
Building Quality Homes



LAN KWAI FONG  
蘭桂坊集團  
GROUP

LAN  
KWAI FONG  
IS NOT ONLY  
A PLACE  
IT'S  
A Lifestyle

Lan Kwai Fong Group is an innovative property development company operating across Greater Asia and China, focusing on lifestyle businesses and brand extension in real estate, retail, dining, entertainment and themed attractions.

Expanding its reach into investment, social & digital connectivity, as well as disruptive technology, we aim to enrich the lives of consumers, guests and employees within the communities where they live, work and play.



TOWNLAND

We congratulate HKIP on its  
40th Anniversary!

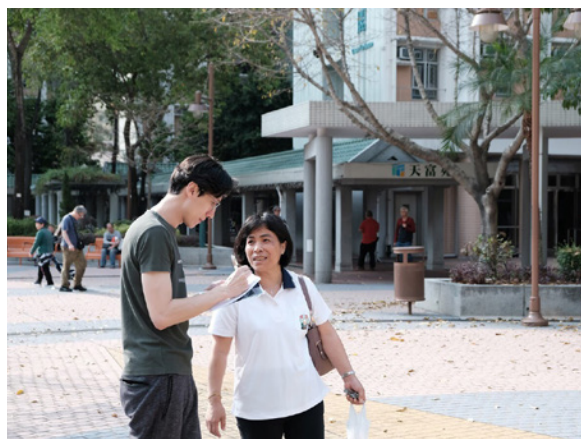
www.townland.com

HONG KONG | P.R.CHINA | INDONESIA | INDIA

# HKIP Awards 2018 - Young Planners Award

## Young Planners Award: Mr. Louis Cheung

---



Louis is a people-centric planner with experiences including strategic and district planning, cross-boundary development and community engagement. He is currently a Town Planner at the Planning Department of HKSAR Government, working on the HK2030+ Study and compilation of TPEDM.

Louis is also an active voluntary planner working on various community planning projects for NGOs. He has worked with different stakeholders together to organize various community planning activities and turned places into something positive and constructive to the local community. His passion and contributions to community planning have been recognized by receiving the Silver Award of HKIP Awards 2017 and the Wendy Sarkissian Award from Australia, which identified and celebrated the community

engagement practice goes beyond standard good practice.

Louis obtained a degree in Bachelor of Arts (double-major in Geography and Chinese Language & Literature) at the University of Hong Kong in 2009, and further pursued his Master of Science in International Planning at the Bartlett, University College London, in 2010.

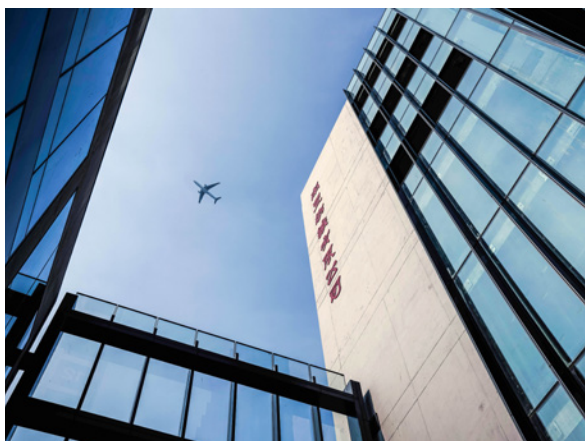
He is a Full Member of Hong Kong Institute of Planners and a Registered Professional Planner. He has been the Honorary Secretary of Hong Kong Institute of Planners, Co-Convenor of Community Planning Committee and Co-Convenor of Website Committee since 2017, and he was the former Co-Chairman of Young Planners Group (2012-14).



## HKIP Awards 2018 - Young Planners Award

# Young Planners Award: Ms. Lok Hom Ning

---



Lok Hom Ning, Sam, is a professional town planner with experience including district planning, enforcement and prosecution, planning research and property development. She is now the Manager in Nan Fung Development Limited, leading a team to carry out property and business development, strategic planning, policy research, planning applications, etc. She is also the planner in charge of The Mills, the award-winning industrial heritage conservation, revitalization and wholesale conversion project.

Sam obtained her degrees in Bachelor of Engineering in Urban Planning and Bachelor of Laws in International Relations and Foreign Affairs in the Peking University in 2009. She also obtained Master of Science in International Planning in The Bartlett, University College London, in 2010, and

Master of Science in Real Estate in the University of Hong Kong in 2016.

Sam is a Registered Professional Planner. She is also the Full Member of Hong Kong Institute of Planners (HKIP) and Chartered Member of Royal Town Planning Institute. Sam has been the Council Member of HKIP and Co-convenor of Mainland Liaison Committee since 2016, and a member of External Affairs Committee and Public Affairs Committee at present. To promote HKIP to the public and encourage continuous professional development, Sam has been involved in organizing Annual National Planning Conferences, Hong Kong-Shenzhen Planning Salon Series, Mainland planning courses, Greater Bay Area Conference, etc.

## List of HKIP Members (as of May 2019)

### Honorary Members

Ms. Chen Xiaoli	Hon
Mr. Cheng Hon Kwan	Hon
Mr. Edward S.T. Ho	Hon
Prof. C Y Jim	Hon
Prof. Lung Ping Yee, David	Hon
Prof. Peter Hills	Hon
Prof. Reginald Yin Wang Kwok	Hon
Mr. Robert Upton	Hon
Academician Wu Liangyong	Hon
Prof. Y M Yeung	Hon
Academician Zhou Ganzhi	Hon
Academician Zou Deci	Hon
Dr. Qiu Baoxing	Hon
Dr. Shi Nan	Hon
Mr. Roger Bristow	Hon
Prof. Rebecca Lai Hai Chiu	Hon
Mr. Li Xiaojiang	Hon
Mr. Stanley Wong Yuen-fai	Hon

### Fellow Members

Pun Kwok Shing, Peter	F03
Yeh Gar On, Anthony	F06
Fung Chee Keung, Bosco	F09
Lo Chai Wan, Edmund	F11
Tam Po Yiu	F12
Tam Siu Ying, Iris	F19
Tse Suk Ying, Ava	F20
Lam Siu Lo, Andrew	F21
Brownlee Ian	F22
Chan Kim On	F23
Ho Siu Fong, Betty	F24
Mak Hoi Cheung, Eunice	F25
Yip Cho Tat, Stanley	F26
Au Chi Wai, David	F27
Tang Man Bun	F28
Leung Cheuk Fai, Jimmy	F29
To Lap Kee, Kenneth	F30
Au Wai Kwong Elvis	F31
Yue Lit Fung, Owen	F32
Shek Chi Man, Lillian	F33
Ling Kar Kan	F34
Ng Mee Kam	F35
MacDonald Alan Forbes	F36
Li Chi Miu, Phyllis	F37

Tang Bo Sin	F38
Chau Yat Cheung, Lawrence	F39
Lo Wai Ming, Edward	F40
Lee Kai Wing, Raymond	F41
Lung Siu Yuk, Fiona	F42
Tang Siu Sing, Kenneth	F43

### Full Members

Tsang Ching Lun, Edwin	M042
Leung Shu Ki	M072
Chan Tat Choi, Ted	M074
Chan Yiu Kwong, Michael	M094
Lee Tak Keung	M096
Wong Man Yiu, Stephen	M101
Perry Keith Douglas	M107
Lo Oi Ling, Christina	M108
Pong Yuen Yee	M109
Lai Wai Chung, Lawrence	M127
Chung Pui Kai	M130
Chan Kwok Wing, Kelvin	M131
Chan Chun Fung, Michael	M133
Fong Tak Shiu, Teresa	M134
Chow Mun Wah, Anna	M135
Yiu Chin, Steve	M138
Chan Wai Shun, Wilson	M143
Leung Yip Hung, Raymond	M144
Yue Chi Kin, Eric	M147
Wong Yuen Sheung, Ophelia	M154
Ngai Sik Keung	M159
Chan Yuet Mei, Heidi	M163
Seddon Karen Rose	M166
Au Kit Ying, Brenda	M169
Chang Kwok Shing, Philip	M170
Lau Wing Seung	M172
Pang Caroline Y	M182
Sun Che Yung, Derek	M186
Tsang Wai Man Vivian	M187
Tso Yiu Nam, Tony	M188
Chum Yan Leung, Phillip	M190
Chan Po Ling, Margaret	M191
Ng Suk Kwan, Sandy	M197
Lai Ting Kwok, Vincent	M199
Lam Wing Man	M201
Khong Yon Fai, Marino	M202

Liu Yee Chun, Alice	M203	Wong Lap Ki	M271
Liu K M, Silas	M208	Yu Lap Kee, Richard	M272
Li Cho Ming	M209	Chiu Ming Cheong, Ronnie	M274
Chan Siu Wan, Wallace	M210	Chan Kai Wah, Eva	M275
Ng Cheuk Yee, John	M211	Hung Fung Ling, Fannie	M277
Lam Shu Tsook, Kitty	M212	Liu Mei Fong, Kennie	M278
Wong Tak Sang	M213	Ng Kar Shu	M279
Tam Tze Hoi, Tom	M214	Law Ming	M280
Yeung Chi Wai	M216	Lai Pik Hung, Stephanie	M281
Tang Wai Leung	M218	Lo Sui Yan, Philip	M283
Kwan Yuen Ling, Paulina	M221	Li Man Wai, Kenneth-John	M284
Yam Ya May, Lily	M222	Ng Chu Pan, Kevin	M285
Wong Fung Yee, Karen	M223	Ho Ying Kwong	M286
Chao Tak Sum, Terence	M224	Harrad Bernard William	M289
Ng Kwok Tim	M225	Lam Lit Kwan	M290
Wong Shun Wun, Rebecca	M226	Cheung Wa On	M295
Austin Joseph Jerry	M227	Chan Hoi Yun, Helen	M296
Kiang Kam Yin	M228	Woo Kit Ching, Jacinta	M297
Chung Man Kit, Ivan	M229	Chan Wai Man, William	M298
Tang York May, Agnes	M230	Ng Tak Wah	M300
Fishley David John	M233	Ying Kong Chau, William	M301
Siu Yee Lin, Richard	M234	Tsang Wing Keung	M302
Cookson-Smith Peter	M236	Cheng Wan Ying, Johanna	M303
Chan Yin Sang	M237	Leung Siu Ping, Amy	M305
Tsang Ho Cheung, Robert	M238	Chiu Kit Yee, Kitty	M306
Leung Mei Ling	M240	Chan Chung Yun	M307
Ho Chi Wing	M244	Kun Ka Yin, April	M308
Fong Sum Yee, Sally	M245	So Yuet Sin	M309
Lam Sau Ha	M246	Ho Kim Kam, Bonita	M310
Ng Mun Sing	M249	Lam Bo Yin, Pauline	M312
Lam Chi Man, David	M250	Ng Yong, Stella	M313
Cheung Cho Lam, Vincent	M253	Pang Lai Fai, Willy	M314
Soh Chun Kwok	M254	Cheng Tat Cheong	M315
Kau Kin Hong, Louis	M255	Yip Oi Fong	M316
Fung Tin Yin, Tim	M258	Tam Kui Shang	M317
Leung Wing Kwong, Kris	M260	Kong Siu Ping	M318
Tang Man Hung, Roger	M261	Chan Kwai Chau	M319
Ng Yuk Man, David	M262	Tam Yin Ping, Donna	M320
Cheuk Hau Kwan	M263	Tang Man Yee, Esther	M322
Chin Man Yi, Maggie	M265	Au Hei Fan	M324
Chan Pak Hay, Simon	M266	Law Tat Pong	M326
Kiu Chung Yin, Alexander	M267	Tse King Ching, Christine	M329
NG Yuk Hing, Serena	M268	Yiu Kuk Hung, Portia	M332
Young Pui Yin, Edwin	M269	Wong Kam Fung	M333
Lam Mun Wah, Joanna	M270	Chan Otto	M335

Chow Man Hong	M336	Cheung Simon	M392
Leung Wai Sze, Mina	M337	Chan Cheuk Ling, Kathy	M393
Lam Tak Keung	M338	Tam Yee Ting, Pamela	M395
Fong Wai Kit, Billy	M339	Wong Heung Wing	M396
Wong Wai Man, Gina	M341	Cheung Chi Keung, Simon	M397
Cheng Ping Lun, Otto	M342	Yeung Wing Shan, Theresa	M398
Chiu Sung Pak, Edmond	M343	Tsang Ann Lee, Cindy	M399
Chan Yuen Mei, Phoebe	M344	Ng Kwok Leung, Steven	M400
Ho Yuen Ching, Jessica	M345	Chan King Kong, Theron	M401
Man Nga Chee, Irene	M348	Wong Man Kan	M402
Pun Lim Shuet, Paulina	M351	Chu Wing Hei, Alvin	M403
Tong Po Wong, Emily	M352	Au Yu Lun, Alan	M404
Wu Ming Yee, Amy	M353	Yiu Yuk, Isabel	M405
Sin Wai Yu	M354	Lau Kit Ying	M406
Lee Kit Tak, Jessica	M355	Kwan Yee Fai, Mike	M408
So Mei Ling, Eliane	M357	Mok Kwok Chung, Dickson	M409
Black Philip Douglas	M358	Law Chun Pong, Raymond	M410
Chan Suk Kam	M362	Ng Wai Man, Candy	M411
Cheung Yi Mei, Amy	M363	Lau Fung Yee, Rebecca	M412
Lai Wai Yee, Anissa	M366	Lam Kwok Chun, Greg	M413
Fung Chi Man, Ernest	M367	Chan Wai Ling	M414
Chan Hau Yin, Margaret	M368	So Oi Tsz, Teresa	M415
Wong Hau King, James	M369	Wong Yuk Ling, Elaine	M416
Lee Kin Shing	M370	Cheng Chung Yi	M417
Wong Siu Mee, Erica	M371	Sze Lai Hung, Lily	M419
Cheng Tak Yiu, Eureka	M372	Wong Chiu Sheung	M420
Luk Kwok On, Anthony	M373	Yang Ching, Channy	M421
Lai Man Foon, Vivian	M374	Lui Yu Man, Timonthy	M422
Kan Kwok Chee, Joshua	M375	Chow Wai Ling	M423
Tang Tsui Yee, Caroline	M376	Wong Wai Yee, Michelle	M424
Tong Kit Mei	M377	Lung Yan Cheung, Helen	M425
Chu Ha Fan	M378	Lai Shin Kwan, Flora	M427
Ho Bo Wan	M379	Wong Oi Chu, Anna	M429
Hui Chak Hung, Dickson	M380	Yuen Hou Yee, Angela	M430
Wong Wai Yin	M381	Lai Mei Yue, Daisy	M431
Leung Pui Chu	M382	Lee Wai Ying, Joanna	M433
Leong Yee Tak, Yvonne	M383	Yuen Man Sin, Michelle	M435
Mok King Kwong, Dennis	M384	Lo Yuk Man, Josephine	M436
Wu Yuk Ha, Illis	M385	Siu Ka Lay, Grace	M437
Cheung Kin Kee, Michael	M386	Chan Wai Sum, Venus	M438
Wong Hon Meng	M387	Lam Man Ying, Josephine	M439
Yick Hong Nien, Hannah	M388	Chan Kok Yun	M440
Ting Suet Yi, Doris	M389	Fung Sze Kiu, Cynthia	M441
Cheung Yuk Yi, Alice	M390	Ho Wai Hung	M442
Tse Pui Keung, Derek	M391	Lee Thomas	M443

Hung Chung Hing	M444	Yeung Shui Ling, Erin	M495
Leung Wai Cheung, Terence	M445	Cheuk Yuk Ming	M496
Ng Hiu Ming, Herman	M446	Leung Kam Shing	M497
Tsang Chiu Kei	M447	Chan Tin Yeung, Joseph	M498
Liu Chung Gay, Sharon	M448	王敏	M499
Ma Yiu Chung, Denis	M450	朱文華	M502
Lam Ka Fai, Francis	M451	Hui Pui Yee, Pearl	M513
Wong Chun Kwok	M452	Wong Wing Tak	M514
Lee Sin Yee	M453	Lau Kar Kay, Alan	M515
Hui Chi Ming, Lawrence	M454	Fok Chi Wai, David	M516
Yuen Shing Yip, Kepler	M455	Leung Pui Ching	M517
NG Kim Wai	M456	白晨曦	M519
Leung Kwok Man, Lautrec	M458	周珂	M520
Chan Kwun Hang, Coway	M459	吳濤	M531
Chau Yin Mai, Lisa	M460	Cheung Ka Kei	M532
Chan Suet Ying, Carmen	M461	Yu Lap Kei, Lake	M533
Wong Elim	M462	Leung Hoi Ting, Jannie	M534
Ip Wai Man, Emily	M463	Chan Ka Wai, Karen	M535
Leung Hoi Chun, Edward	M464	Kwong Wang Ngai	M536
Lee Mei Fun, Rowena	M466	Wong Cho Wa, Ivy	M537
Fung Mo Yeung, Patrick	M467	Au Pui Yu	M538
Lau Chun Him, Kenny	M468	Lee Ka Kay	M539
Ng Ka Wah	M470	So Shuk Yee	M540
Yu Wai Kin	M471	Wong Pui Sai, Kitty	M541
Lee Kin Ki	M473	左泓	M544
Kan Ka Man	M474	吳曉莉	M546
Poon Chi Fai, Larry	M475	何化忠	M550
Govada Sujata Subbu	M476	王萍	M551
Ip Kui Chi, Anthony	M478	Li Man Hon	M553
Leung Wai Yee	M479	Wan Hoi Ying, Helen	M554
Lee Ki Na	M480	Fu Yee Ming	M555
Ng Wing Fai, Stanley	M481	Wan Kit Man, Janice	M556
Lau Chi Fai, Stanley	M482	Cheuk Ching Ping, Jacqueline	M557
Chan Wing Chuen	M483	Chan Pak Kan	M558
Luk Yin Sheung, Veronica	M484	Chan Wai Lam	M559
Wu Wan Yin, Winnie	M485	Mak Chung Hang	M560
Yip Chi Kwai	M486	Li Sok Ching	M561
Chan Lai Cheung	M487	Yung Hung Tam, Nelson	M562
Yeung Chi Shing	M488	Chan Ka Ho	M563
Cheung Chi Ming	M489	Mak Weng Yip, Alexander	M564
Lee Po Kwan, Edmund	M490	Wong Hei Yin	M565
Ip Wai Yi, Alison	M491		
Lam Kin Ning	M492		
Lam Mei Yee	M493		
Tang Po Kwan	M494		

Li Ka Sing, Charles	M571	Cheung Siu Hung	M624
Yu Pui Sze, Canetti	M572	Ng Chui Yi	M625
Sze Yuen Ling, Gloria	M573	Chan Yuk Yee, Anna	M626
Chan Hong Lei	M574	Kwok Man Hin	M627
Chiu Yin Ho, Kenneth	M575	Lam Tsz Kwan	M628
Lui Tak Shing, Gary	M576	Lau Wai Cheung	M629
Lo Sing Wun	M577	Lo Janice Bryanne Wing Yin	M630
Tong Karmin	M578	Poon Benson Fu Kit	M631
Wong Chun Lai, Frank	M579	Wong Anita Mo Yin	M632
Ng Sze Nga, Gladys	M588	Wong Pak Cheong, Kenneth	M633
Chan Chin Hung, Joe	M589	Chan Cynthia Mou Yin	M634
Lay Voon Hoong	M590	Tang Yiu Chung, Daniel	M635
Lee Wai Lam, Lirivs	M591	Tang Yik Ting, Edwin	M636
Leung Zin Hang, Ebby	M592	Ho Man Sze	M637
Mou Ka Yan	M593	So Lek Hang, Lake	M638
Lau Sau Yee	M594	Wong Ngar Wing, Ada	M639
Wong Ho Yee, Katherine	M595	Chan Ka Kei, Shirley	M640
Cheung Hiu Nam	M596	Chan Wing Tak	M641
Lee Yik Ki	M597	Choi Man Kit	M642
Chan Wing Kit, Kenny	M598	Kwok Sin Kit	M643
Kan Chung Sze, Sincere	M599	Kira Loren Brownlee	M644
Fung Ka Wun, Edith	M600	Chu Suet Wa	M645
Wong Chui Ying, Tracy	M601	Chung Ho Ting, Elton	M646
Leung Lok Sze, Lucille	M602	Luk Lok Yin	M647
Chan Sin Ting, Sandy	M603	Cheung Ching Yan	M648
Cheng Pui Kan	M604	Lok Mable Mei Bo	M649
Lau Ka Wing	M605	Wan Wai Yan	M650
Au Yue Yan	M606	Cheung Ling Chi	M651
Au-Yeung Wan Man	M607	Koon Sun Fai	M652
Kan Ka Lo	M608	Law Yuk Ling	M653
Siu Yik Ho, Steven	M609	Leong Ka Ho	M654
Tsang Yik Ting, Floria	M610	Hung Ting Wai, David	M655
Cheung Hoi Yee	M611	Fung Wing Hang, Mathew	M656
Wai Hiu Kwan	M612	Fung Chi Keong	M657
Lee Ka Ho, Kent	M613	Lau Sze Hong	M658
Sit Hing Yu	M614	Leung Sui Hei	M659
Kwan Wing Fai	M615	Leung Yin Cheung, Barton	M660
Li Yee Ting	M616	Yip Kam Yee	M661
Leung Ming Yan	M617	Lee Cheuk Hei	M662
Tse Pui Lam	M618	Chan Hoi Kei, Stephanie	M663
Chau Cheuk Leung, Brian	M619	Lau Tak, Francis	M664
Tam Ka Yan, Eva	M620	Chan Distinction	M665
Lok Hom Ning	M621	Liu Ka Chuen	M666
Cheung Ho Wing	M622	Pui Shan NG LI	M667
Choi Yat Nang	M623	Chan Yat Man	M668

To Yuen Gwun	M669	Chan Chun Yim	M714
Kan Cheung Heng	M670	Chan Hiu Yan, Sharon	M715
Cheung Chui Ying	M671	Chui Loreen	M716
Chiu Sung Ngai, Adrian	M672	Ho Joseph Junior	M717
Woo Man Ching	M673	Tang Wai Shan, Sandi	M718
Kan Ka Ho, Calvin	M674	Chan So Man	M719
Yeung Sheung Chi, Henry	M675	Jia Ying Zi	M720
Yeung Cheryl Hiu Lam	M676	Wai Che Hong	M721
Chan Ching Ching	M677	Wong Tsz Hei, Alice	M722
Wong Cho Ting	M678	Yan Wing Yin	M723
Chiu Pak Him	M679	Chung Wing Yee Vanessa	M724
Ho Chi Kin	M680	Lee Wing Ki	M725
Chan Ka Chi	M681	Kok Man Chun	M726
Cheung Man Yee	M682	So Sin Man	M727
Wong Po Kit, Jeffrey	M683	Tsang Hin Chi	M728
So Tsz Lui	M684	Tsang Tsz Yan	M729
Chan Yee Tak	M685	Wong Sau Yin	M730
Leung Sau Man, Esther	M686	Wong Pok Shaan	M731
Law Ho Hei	M687	Li Si Juan, Emerson	M732
Tang Wai Lap	M688		
Lau Chi King, Vincent	M689	<i>Retired Members</i>	
Li Haniel	M690	Kwok Tze Yu, Henry	R06
Ma Lai Kei, Vicky	M691	Siu Lai Yee, Maria	R12
Sin Ho Ting	M692	Yeung Kam Chiang, Stewart	R13
Tsui Ka Yan, Karen	M693	Chau Cham Son	R16
Tse Chun Yu	M694	Woo Chi Sun	R18
Kau Tin Chak	M695	Kwan Tsoi Kwai, Anthony	R20
Lau Sing	M696	Li Chi Kwong	R22
Lee Yin Ting	M697	Lau Yiu Kwong, Alfred	R23
Siu Carmen	M698	Ho Siu Che, Winnie	R26
Elizabeth Ng	M699	Chan Yim Chi, Doreen	R28
Tsoi Tak Chun	M700	Chan Ip Wai Nor, Catherine	R30
Chow Chun Chi, Cecil	M701	Chan Pun Chung	R32
Kwok Chung Kit	M702	Wong Oi Yee, David	R33
Cheung Ming Kit	M703	Lam Ho Ka Yin, Angelica	R34
Law Ting Hin	M704	Wong Wai Man, Raymond	R35
Lee Wing Sum, Winsome	M705	Lui Chun Wan, Alex	R38
Ng Pui Shan	M706	Fan Siu Wah, Connie	R39
Wong Hon Yip	M707	Ling Chi Tack	R40
Lee Ho Ching, Adrian	M708	So Ying Leung	R41
Tam Tsz Chung	M709	Lee Shu Wing, Ernest	R42
Ho Kon Chung, Jeff	M710	Woo Man Yee	R43
Lau Ka Chun	M711	Tam Tai Wai, David	R44
Yeung Yun Wing	M712	Leung Mi Ching, Cecilia	R45
Yuen Cheuk Heng, Cherry	M713	Chu Hung, Viola	R46

Chan Chung Shing, Harry	R47	Kong Sze Nga	S710
Li Pui Leung	R48	Lee Ka Ho, Carol	S723
Tso Yiu Nam, Tony	R49	Chan Che Ho, John	S733
Fong Kwok Wing, Peter	R50	Lam Tat Leung	S736
Yau Chap Ho	R51	Wu Peter	S746
Kwan Ping Chung, Benny	R52	Mak Tsz Wai	S748
Chan Chung Fung, Michael	R53	Miu Clement	S761
Cheng Lai Sum, Lisa	R54	Chan Lok Yi, Natalie	S779
		Wei Daniel James Cherk Hung	S781
<b>Student Members</b>		Chan Wing Yan	S782
Mok Wai Man, Karina	S325	Chung Him	S793
Lo Wing Yee	S329	Pang Sin Yi, Cindy	S794
Lam Yuk Ching, Connie	S341	Ho Wing Hei, Nancy	S796
Tang York Wan, Angela	S369	Ma Chiu Ming	S810
Yap Kwok Keung, Kevin	S375	Wong Tak Wun	S811
Wong King Wan, Bille	S403	Chan Ka Wing, Connie	S815
Hurlow John Philip	S410	Choy Yik Fung, Edwin	S818
Sun Kwok Kee	S461	Mo Cui Yu	S832
Ip Chi Tim	S522	Pang Yuen San, Helena	S838
Lee Chun Kit	S529	Chan Lok Ting	S840
Tsang Yi Ching, Vivian	S575	Mak Ka Lam, Ariel	S846
Fung Wing Sze	S576	Tse Kit Ha, Jacqueline	S847
Cheung Ka Chun	S583	Lam Sau Yin	S852
Lam Wing Ching, Chrisilia	S585	Au Yeung Kwan	S856
Wan Cheuk Wai	S589	Kwok In Wai	S861
Luk Siu Chuen, Thomas	S599	Li Chun Yu	S863
Choi Kam Lung, Franky	S602	Wang Hai Tian	S866
Leung Wai Man	S610	Zhang Yuan	S870
Wong Hang Yee	S616	Chen Ting Ting	S871
Cheng Man Wah	S625	Lang Wei	S873
Chan Dick Sang, Philip	S630	Chan Pui Shan, Theodora	S878
Ng Suet Wing	S639	Lau Ho Yee	S883
Calvin Cheng	S653	She Gee Chun	S884
Li Wai Kit	S655	Wong Wing Tsung, Anthony	S887
Yau Sau Yee, Sophie	S666	Chun Wan In	S891
Serena Tong	S667	Chan Chi Hang, Ronald	S894
Cheng Ka Man, Clement	S673	Fan Xiao Wei	S896
Tam Wing Lun	S677	Lee Si Wai	S900
Or Pok Man	S680	Ngai Hoi Yan, Janet	S907
Yu Lin Keung	S684	Chow Chi Fung	S913
Wu Ho Kei, Maggie	S693	Fu Hoi Him, Nicholas	S914
Chiu Wai Yee, Betty	S694	Wong Delius Ho Ki	S917
Leung Wai Kit, Ricky	S699	Chan Tsun Lok	S918
Tam Chi Ho, Raymond	S703	Au Ho Cheong	S919
Chiu Chi Yeung, Eric	S708	Cheung Hung Man, Horman	S926



Cheung Ka Man	S927	Lai Wai Ching	S981
Hung Chi Wai	S928	Lo Man Chi, Gigi	S982
Kwan Chuk Man	S929	Lau Sin Yee	S983
Lee Sze Yan	S930	Leung Shing Tak	S984
Lam Ka Wai	S931	Liu Sui Chun	S985
Li Mei Huen, Madelene	S933	Tai Lok Yee	S986
Liu Ka Chun, Firn	S934	Tam Yuen Ting, Edie	S987
Lo Sum Yuen, Angela	S935	Tang Yan Man	S988
Ma Ka Chun	S937	Wong Cheuk Man	S990
Wan Jolie Pui Kei	S939	Wong Kai Nang	S991
Yu Tsz Yan, Amanda	S940	Wong Kit Chuk	S992
Au Hei Man	S941	Wong Lok Ting	S993
Chan Hiu Man	S942	Wong Yuet Lun	S994
Ho Jacqueline Lily	S944	Wu Pak Yan, Martin	S995
Lau Chui Yu	S946	Yang Sze Ki	S997
Kong Tsz Ming	S947	Yeung Wing Yee	S998
Li Man Kit	S948	Yim Shiu Man, Natalie	S999
Li Pak Ka, Rebecca	S949	Yik Shuk Yee	S1000
Lo Yan Ki	S950	Moonifer LI	S1003
Leung Jessica Cheuk Yan	S951	Shum Carlson Ka Chun	S1004
Ng Kun Fung, Mathew	S952	Lee Lok Man, Joyce	S1005
Wong Pak Ho	S954	Tai Long Him	S1006
Ling Chi Ho	S956	Chan Chun Wai, Wayne	S1007
Yeung Man	S957	Chan Yan Hang	S1008
Wu Long Chi	S958	Chau King Fung	S1009
Choi Wai Yin	S959	Lee Chi Lap Jacky	S1010
Chung Pak Hin	S960	Fung Ka Lok	S1011
Chan Hoi Ming, Jaime	S961	Kwok Man Heng, Jessie	S1012
Chow Ho Yan, Claudia	S962	Law Tze Wai	S1013
Lai Sze Fat	S963	Leung Pik Kwan	S1014
Law Pui Lam	S964	Leung Kwok Ling, Angela	S1015
Ip Ka Wing, Helen	S966	Ng Si leong	S1016
Au Wing Yee	S967	Tang Long Ying	S1017
Chan Chi Yui, Cyril	S968	Yim Hoi Yan	S1018
Chan Chun Yan Robin	S969	Yang Man Qi	S1019
Cheng Ka Yan, Aileen	S970	Chan Yuk Yee	S1020
Cheung Fei Yeung	S971	Fung Chi Hei	S1021
Cheung Yeung Mei	S972	Ho Nga Sum Clarice	S1022
Chung Ho Ching	S973	Kong Man Wa	S1023
Chung Wing Hong	S974	Ku Yiu Chung	S1024
Fok Ivy Ho Yan	S975	Lau Han	S1025
Hau Yat Long	S976	Ngan Mui Chun	S1026
Ho Hiu Fai	S977	Tsui Pik Chun	S1027
Kong Sze Wai	S979	Wong Man Kwan	S1028
Kwan Hiu Tung	S980	Wong Kiu Ho	S1029

Yeung Tsz Chun	S1030
Leon Hiu Fung	S1031
Ko Oi Ching	S1032
Ng Fook Yee	S1033
Liao Yan Hong	S1034
Rung Er Jang	S1035
Tse Hiu Lam	S1036
Wong Tim Shun	S1037
Kung Lok Ting	S1038
Kong Wing Sum	S1039
Cheng Wai Yeung	S1040
Lam Lok Ka	S1041
Woody Lin	S1042
Chong Yuen Ting	S1043
Long Yee Duen	S1044
Rachel Lo	S1045
Lim Tse Kang, Mark	S1046
Au Yuen Yau	S1047
Chan Kei Yee	S1048
Mak Pui Man	S1049
Wong Chun Ki, Derek	S1050
Wong Yi Ching	S1051
Chow Long Hei	S1052
Ng Sheldon Ming Sum	S1053
Yeung Wing Man, Cheryl	S1054
Tang Ho Kiu	S1055
Shahneez Haseeb	S1056
Chiong Hoi Yan	S1057
Chen Chu Ying	S1058
Chung Ho Ching Hillary Charlotte	S1059
Lee Ka Kan	S1060
Ng Ka Kit	S1061
Tai Yik Shing	S1062
Yeung Wai Shing	S1063
Kong Ka Chun	S1064
Lai Pui Yan	S1065
Chan Tsz Chung, Alexander	S1066
Ma Ruiqu	S1067
Tam Kai Hong	S1068
Tam Yee Ting	S1069
Wong William Shu Tai	S1070
Wu Kit Shan	S1071

#### *Affiliates*

William Ho	A02
Lau Man Kwan, Julia	A04
Paulus Johannes Zimmerman	A05
Yew Yat Ming	A06

## Registered Professional Planners (as of June 2019)

### RPP

#### No. Name

1	CHAU CHAM SON
7	PUN KWOK SHING
9	TSANG CHING LUN, EDWIN
10	YEH GAR ON, ANTHONY
11	TAM PO YIU
15	AU KIT YING, BRENDA
17	TANG SIU SING
28	TANG BO SIN
29	CHAN KIM ON
30	TAM SIU YING, IRIS
34	CHUNG MAN KIT, IVAN
38	HO SIU FONG, BETTY
39	LEUNG CHEUK FAI, JIMMY
42	LAI WAI CHUNG, LAWRENCE
43	CHUNG PUI KAI
44	TANG YORK MAY, AGNES
45	TAM TZE HOI
46	AU WAI KWONG, ELVIS
47	YEUNG CHI WAI
49	CHAN WAI SHUN
59	LAM WING MAN
66	PANG CAROLINE Y.
68	KHONG YON FAI, MARINO
69	SEDDON KAREN ROSE
72	TO LAP KEE
73	WONG SHUN WUN, REBECCA
78	CHAN WAI MAN, WILLIAM
79	LING KAR KAN
87	PETER COOKSON SMITH
92	BROWNLEE IAN THOMAS
93	LEE SHU WING, ERNEST
96	NGAI SIK KEUNG
98	NG CHEUK YEE, JOHN
99	MAK HOI CHEUNG, EUNICE
101	LO YU KWAN, RUPERT
103	YU LAP KEE
104	CHEUNG YI MEI, AMY
105	WONG LAP KI
108	CHAU YAT CHEUNG, LAWRENCE

### RPP

#### No. Name

111	CHAN HOI YUN, HELEN	陳凱恩
113	WONG WAI MAN, GINA	黃慧敏
114	LEUNG WING KWONG	梁榮光
115	WONG YUEN SHEUNG, OPHELIA	黃婉霜
117	CHAN TAT CHOI, TED	陳達材
118	PANG LAI FAI, WILLY	彭禮輝
120	LEUNG SHU KI	梁樹基
122	HO YING KWONG	何應光
123	NG YONG, STELLA	黃蓉
126	HO KIM KAM, BONITA	何劍琴
127	LAW MING	羅民
128	NG SUK KWAN	吳淑君
130	LAM BO YIN	林寶燕
132	AU HEI FAN	區晞凡
134	AU CHEUNG MING	區長明
137	CHENG WAN YING, JOHANNA	鄭韻瑩
138	CHENG TAT CHEONG	鄭達昌
139	YIP OI FONG	葉愛芳
142	BLACK, PHILLIP DOUGLAS	實力勤
146	CHAN PAK HAY, SIMON	陳栢熙
147	LAM SAU HA	林秀霞
148	LAM TAK KEUNG	林德強
149	LAW TAT PONG	羅達邦
151	TANG MAN HUNG, ROGER	鄧文雄
152	WU MING YEE, AMY	胡明儀
154	CHU HA FAN	朱霞芬
155	WONG HAU KING, JAMES	黃孝經
156	MACDONALD ALAN FORBES	
157	CHAN HAU YIN, MARGARET	陳巧賢
158	NG KIM WAI	吳劍偉
160	HUI CHI MING, LAWRENCE	許自明
162	KAN KWOK CHEE, JOSHUA	簡國治
164	CHIU SUNG PAK, EDMOND	趙崇柏
165	TAM YIN PING, DONNA	譚燕萍
166	LAU CHI TING	劉志庭
167	LUK KWOK ON	陸國安
169	YUEN SHING YIP, KEPLER	袁承業
170	YIU CHIN, STEVE	姚展

**RPP****No. Name**

172 TANG TSUI YEE, CAROLINE  
 173 MA CHING YUEN, JOSEPH  
 174 HUI CHAK HUNG, DICKSON  
 175 YIU KUK HUNG, PORTIA  
 176 YAN YAN SUM, BARRY  
 178 NG MUN SING  
 179 WONG CHUN KWOK  
 180 HO CHI WING  
 181 WONG WAI YIN, PATRICK  
 182 SIU WAI YIN, FLORENCE  
 186 LI MAN WAI, KENNETH JOHN  
 188 YOUNG PUI YIN, EDWIN  
 189 LO SUI YAN, PHILIP  
 190 NG WING FAI, STANLEY  
 193 LEONG YEE TAK, YVONNE  
 195 HARRAD BERNARD WILLIAM  
 200 LEUNG PUI CHU  
 201 LEUNG YIP HUNG, RAYMOND  
 203 FUNG MO YEUNG, PATRICK  
 205 CHEUNG CHO LAM  
 206 NG KWOK LEUNG, STEVEN  
 208 TSE PUI KEUNG  
 210 SUN CHE YUNG, DEREK  
 213 CHEUNG CHI KEUNG, SIMON  
 214 LAI PIK HUNG  
 215 TSANG WING KEUNG  
 216 AU YU LUN  
 217 CHAN WAI YI  
 218 TANG WING KEUNG  
 219 LAM LIT KWAN  
 221 LAM YUK CHING  
 224 CHAO TAK SUM, TERENCE  
 225 WONG YUK SUM  
 226 LAW CHUN PONG  
 227 WU YUK HA  
 228 CHEUNG YUK YI, ALICE  
 230 WONG MAN KAN  
 232 CHEUNG SIMON

鄧翠儀  
 馬正源  
 許澤鴻  
 饒菊紅  
 甄潤森  
 吳敏誠  
 黃鎮國  
 何智榮  
 黃偉賢  
 蕭瑋賢  
 李民威  
 楊沛然  
 盧瑞焯  
 吳永輝  
 梁懿德  
 梁佩珠  
 梁業鴻  
 馮武揚  
 張祖霖  
 吳國良  
 謝佩強  
 孫知用  
 張志強  
 賴碧紅  
 曾永強  
 區裕倫  
 陳慧儀  
 鄧永強  
 藍列群  
 林玉清  
 巢德森  
 黃旭森  
 羅振邦  
 胡玉霞  
 張玉儀  
 王民勤  
 張業文

**RPP****No. Name**

233 YEUNG WING SHAN, THERESA  
 235 YAM YA MAY, LILY  
 236 TAM KIT I  
 237 WONG CHIU SHEUNG  
 238 CHOW WAI LING  
 241 TONG YUET KING  
 243 AU CHIN PANG  
 244 TSANG CINDY ANNE LEE  
 245 AU CHI WAI, DAVID  
 247 POON KAI LOK  
 248 CHAN KING KONG, THERON  
 250 TONG PO WONG, EMILY  
 251 SO YUET SIN  
 252 SO OI TSZ, TERESA  
 253 NG WAI MAN  
 255 MOK KWOK CHUNG, DICKSON  
 256 WONG YUK LING  
 258 KWAN YEE FAI, MIKE  
 259 SZE LAI HUNG  
 260 LAU FUNG YEE  
 264 CHU WING HEI, ALVIN  
 266 TSANG WAI MAN, VIVIAN  
 267 LAM KWOK CHUN  
 268 WONG WAI YEE, MICHELLE  
 269 CHAN SHUK WAH, ANNIE  
 270 LEUNG KWOK MAN, LAUTREC  
 273 LAI SHIN KWAN, FLORA  
 274 LO YUK MAN, JOSEPHINE  
 275 LEE WAI YING, JOANNA  
 276 YANG CHING  
 278 TSANG HUNG, SHEEBA  
 280 LO WING YEE  
 281 LEE SIN YEE, CINDY  
 282 YUEN MAN SIN  
 287 LAM MAN YING, JOSEPHINE  
 288 LUNG YAN CHEUNG, HELEN  
 291 CHOW MAN HONG  
 292 CHAN KWUN HANG, COWAY

楊詠珊  
 任雅薇  
 譚潔儀  
 黃超常  
 周惠玲  
 湯月琼  
 歐展鵬  
 曾思蒂  
 區志偉  
 潘啟樂  
 陳勁剛  
 唐寶煌  
 蘇月仙  
 蘇愛慈  
 吳慧敏  
 莫國忠  
 黃玉玲  
 關以輝  
 施麗虹  
 劉鳳兒  
 朱永熙  
 曾慧雯  
 林國春  
 汪慧兒  
 陳淑華  
 梁國民  
 黎倩君  
 盧玉敏  
 李慧瑩  
 楊倩  
 曾紅  
 盧穎儀  
 李倩儀  
 阮文倩  
 林敏瑩  
 龍欣翔  
 周文康  
 陳冠恆

**RPP****No. Name**

294 CHAN KOK YUN  
 295 LIU CHUNG GAY, SHARON  
 296 LAU KIT YING  
 297 NG KA WAH  
 299 LAM MEI YEE  
 300 CHAU YIN MAI, LISA  
 302 LEE THOMAS  
 304 CHANG MING LAI, REGINA  
 306 LAU TAK, FRANCIS  
 308 LEE KIN KI  
 309 CHAN LAI CHEUNG  
 310 KAN KA MAN  
 314 LUK SIU CHUEN  
 315 LUK YIN SHEUNG, VERONICA  
 316 NG HIU MING, HERMAN  
 317 LEE KA KAY  
 319 SIU KA LAY, GRACE  
 320 IP WAI YI, ALISON  
 321 YEUNG SHUI LING  
 322 HUI PUI YEE, PEARL  
 323 FOK CHI WAI, DAVID  
 324 WONG PUI SAI, KITTY  
 325 MAK CHUNG HANG  
 326 FU YEE MING  
 327 CHAN SUET YING, CARMEN  
 328 CHEUK CHING PING, JACQUELINE  
 329 TANG PO KWAN, ANNY  
 330 POON HO WAN  
 331 YUNG HUNG TAN, NELSON  
 332 LAU KAR KAY, ALAN  
 333 WONG HEI YIN, JULIAN  
 334 YU PUI SZE, CANETTI  
 335 CHAN TIN YEUNG, JOSEPH  
 336 LI KA SING, CHARLES  
 337 LEE CHUN KIT  
 339 HO KON CHUNG  
 340 NG SZE NGA, GLADYS  
 341 AU PUI YU

陳國欣  
 廖頌基  
 劉潔瑩  
 吳家華  
 林美儀  
 周燕薇  
 李建華  
 張明麗  
 劉德  
 李建基  
 陳禮璋  
 簡嘉敏  
 陸紹傳  
 陸迎霜  
 吳曉鳴  
 李家琪  
 蕭嘉莉  
 葉慧儀  
 楊瑞玲  
 許貝兒  
 霍志偉  
 黃沛茜  
 麥仲恆  
 傅義明  
 陳雪盈  
 卓靜萍  
 鄧保君  
 潘浩雲  
 翁胸坦  
 劉家麒  
 黃曦然  
 余佩詩  
 陳天揚  
 李嘉聲  
 李俊傑  
 何幹忠  
 吳詩雅  
 區佩瑜

**RPP****No. Name**

342 LEE MO YI  
 343 LO SING WUN  
 344 CHAN PAK KAN  
 345 LO OI LING, CHRISTINA  
 346 LEE KAI WING, RAYMOND  
 347 LAU SAU YEE  
 349 LEUNG ZIN HANG, EBBY  
 350 CHAN HONG LEI  
 351 SIU YIK HO, STEVEN  
 352 TANG KING YAN, SUNNY  
 353 LO JANICE BRYANNE WING YIN  
 354 CHENG KA MAN, CLEMENT  
 355 LOK HOM NING  
 356 IP PAN WAI  
 357 CHEUNG HO WING  
 358 AU-YEUNG WAN MAN  
 359 CHAN WING KIT, KENNY  
 360 FUNG KA WUN, EDITH  
 361 KAN CHEUNG HENG  
 362 POON FU KIT, BENSON  
 363 BROWNLEE KIRA LOREN  
 364 CHAN MOU YIN, CYNTHIA  
 365 HUNG TING WAI, DAVID  
 366 LEONG KA HO  
 367 CHEUNG HOI YEE  
 368 MAK YEE PING, CLARA  
 369 HO WING HEI, NANCY  
 370 WONG CHUNG YING  
 371 YIP SIU KWAN, SANDRA  
 372 LAM TSZ KWAN  
 373 LAW HO HEI  
 374 CHIU SUNG NGAI, ADRIAN  
 375 CHEUNG MAN YEE  
 376 MAK TSZ WAI  
 377 CHAN DISTINCTION  
 378 LAU CHI KING, VINCENT  
 379 WONG PO KIT  
 380 TO YUEN GWUN

李霧儀  
 盧星桓  
 陳伯勤  
 盧愛玲  
 李啓榮  
 劉秀儀  
 梁善姮  
 陳康妮  
 蕭亦豪  
 鄧敬恩  
 盧穎妍  
 鄭加文  
 樂晗寧  
 葉斌緯  
 張浩榮  
 歐陽允文  
 陳榮傑  
 馮嘉媛  
 簡昌恆  
 潘富傑  
 陳慕然  
 洪定維  
 梁嘉豪  
 張凱怡  
 麥綺萍  
 何穎曦  
 黃忠瑩  
 葉兆筠  
 林芷筠  
 羅皓希  
 趙崇毅  
 張敏兒  
 麥芷蕙  
 陳江瑋  
 劉子敬  
 黃保傑  
 杜元鈞

**RPP**

**No. Name**

381	TANG WAI LAP	鄧偉立
382	AU YEUNG KWAN	歐陽坤
383	LAU SZE HONG	劉思航
384	MO CUI YU, CHARLENE	莫翠瑜
385	FUNG WING HANG, MATHEW	馮穎洸
386	LEUNG MING YAN	梁銘茵
387	LEUNG YIN CHEUNG, BARTON	梁彥彰
388	YIP KAM YEE	葉甘飴
389	KAN KA HO, CALVIN	簡嘉豪
390	WONG CHO TING	黃楚婷
391	TAM TSZ CHUNG	譚子聰
392	CHAN WING HO, MICHAEL	陳泳豪
393	CHOW CHUN CHI, CECIL	周振之



BLUE SPONSOR



恒基兆業地產集團  
HENDERSON LAND GROUP

PURPLE SPONSOR



HONG KONG  
HOUSING SOCIETY  
香港房屋協會



TOWNLAND

BROWN SPONSOR



AIKON



KJL Ltd.  
development consultancy



市區重建局  
URBAN RENEWAL  
AUTHORITY

**THE HONG KONG INSTITUTE OF PLANNERS**

Unit No. 201, 2/F, Prosperity Millennia Plaza, 663 King's Road, North Point, Hong Kong

URL: [www.hkip.org.hk](http://www.hkip.org.hk) Email: [hkiplann@netvigator.com](mailto:hkiplann@netvigator.com)

© Hong Kong Institute of Planners 2019

Front cover: © Natalie Yim

The copyright on the individual texts, photos and illustration are held by the respective designers and contributors

All materials in Planning and Development are copyrighted and may not be reproduced in whole or in part without permission from the Hong Kong Institute of Planners. Opinions expressed by contributors are not necessarily those of the Editorial Committee, the Council or in the Institute.



香港規劃師學會  
THE HONG KONG INSTITUTE OF PLANNERS

[www.hkip.org.hk](http://www.hkip.org.hk)