Making Space for Parks
A Toolkit for Hong Kong

Urban Land Institute

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Project Team

Margaret Brooke
CEO | Professional Property Services

Chris Law
Founding Director | Oval Partnership

Eli Konvitz
Director | Planning and Urban Design | Atkins

David Faulkner
President | ULI Asia Pacific

May Chow
Senior Vice President | ULI Asia Pacific

Rachel MacCleery
Senior Vice President | Building Healthy Places Initiative | ULI

Jeffrey Yuen
Project Officer | ULI Asia Pacific

Project Staff

Matt Norris
Director | Building Healthy Places Initiative | ULI

Diana Schoder
Manager | Building Healthy Places Initiative | ULI

James A. Mulligan | Senior Editor | ULI

Diwa Law
Senior Associate | Programmes | ULI Asia Pacific

Laura Glassman
Manuscript Editor | Publications Professionals LLC

Karen Cheng
Designer

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Toolkit Overview

Parks provide critical spaces for recreation, rest, and recharging. However, finding land for high-quality parks is challenging, especially in dense urban environments like Hong Kong. This toolkit describes best practices for the private and public sectors to make space for parks, focusing on the following two strategies:

- **Creating parks.** Whether existing green spaces or less traditional spaces like former parking lots, a variety of sites can be adapted into new parks.
- **Activating parks.** Existing parks and other public spaces can be activated through programming, design, and temporary uses to better serve communities.

In addition, the toolkit reviews approaches to maintenance and funding options that support these strategies, provides illustrative case studies, and compiles resources for further reading.

When endeavouring to create new parks, it is essential to consult an authorized person (AP) to ensure that they are acting in accordance with Hong Kong guidelines and with land use regulations.

Source: Bruce Damonte

Activating Underutilized Spaces for Sustainability

This toolkit is part of the Activating Underutilized Spaces for Sustainability project, which is run by ULI Hong Kong and funded by the Bank of America.

The project encompasses several different activities, including volunteer mapping, a technical assistance panel, and the activation of selected pocket parks in Hong Kong, to demonstrate how small public spaces can become community assets while enhancing sustainability.

As part of this project, the toolkit serves as a resource for anyone who sees ULI Hong Kong's work and is interested in completing similar parks projects. Geared toward both developers and city officials in Hong Kong, the toolkit will jump-start these types of projects by

- Helping communities and private owners understand the value of green open spaces;
- Summarizing approaches for creating and activating these spaces while incorporating sustainability and social equity; and
- Describing funding and maintenance strategies for the private sector and the city to support new or enhanced park space.

Although the pocket parks that are activated through this project are currently expected to be two-year installations, this toolkit also considers funding and maintenance strategies for longer-term projects or shorter projects after which a third party is willing to take on long-term maintenance and operational costs and responsibilities.

Park Typologies

Using a combination of park classifications from the Hong Kong Planning Standards (HK Planning Standards) and the U.S.-based National Park and Recreation Association (NRPA), the Urban Land Institute has identified four park types that are relevant in urban contexts:

- District Open Space/Neighbourhood Park, privately owned;
- District Open Space/Neighbourhood Park, privately/publicly owned;
- Local Open Space/Mini Park, privately owned; and
- Local Open Space/Mini Park, publicly owned.

Source: Billy Hustace Photography

The following chart describes the characteristics of these parks and gives examples of each type. Given the Hong Kong context, this toolkit focuses on pocket parks, specifically those under 200 square metres in high-density areas near other infrastructure.

Two of these typologies are privately owned, although still publicly accessible. According to Hong Kong's Public Open Space in Private Developments Design and Management Guidelines, there are five types of public open spaces in private developments (POSPDs): public greens, plazas, courtyards, pocket spaces, and promenades. These can be at the scale of district open spaces or neighbourhood parks, but they are more likely to be at the scale of local open spaces or mini parks. For the purposes of this toolkit, the focus of POSPDs is on smaller-scale parks.

Park Typologies Most Relevant to Activating Underused Open Spaces in Hong Kong

Typology/classification	Privately owned*	Publicly owned*
• District Open Space (HK Planning Standards) • Neighbourhood Park (NRPA) • Characteristics: Medium-sized sites (at least 1 ha); mix of passive and active recreation features; serve populations up to 0.8 km away	• Publicly accessible • Park or waterfront area associated with nearby real estate development/ building	• Traditional public park • Community garden
• Local Open Space (HK Planning Standards) • Mini Park (NRPA) • Characteristics: Small sites (between 28 m² and 0.4 ha); greater focus on passive recreation; serve populations up to 0.4 km away • Plazas, pocket parks, vest parks, sitting-out areas, dog parks ("pet gardens"), courtyards, parklets • Focus of this toolkit	• Publicly accessible • Open spaces in private developments	• Smaller public spaces • Housing Authority's public housing open spaces

*May be managed or operated differently, which is covered in the activation and maintenance sections of the toolkit.

What Are Pocket Parks?

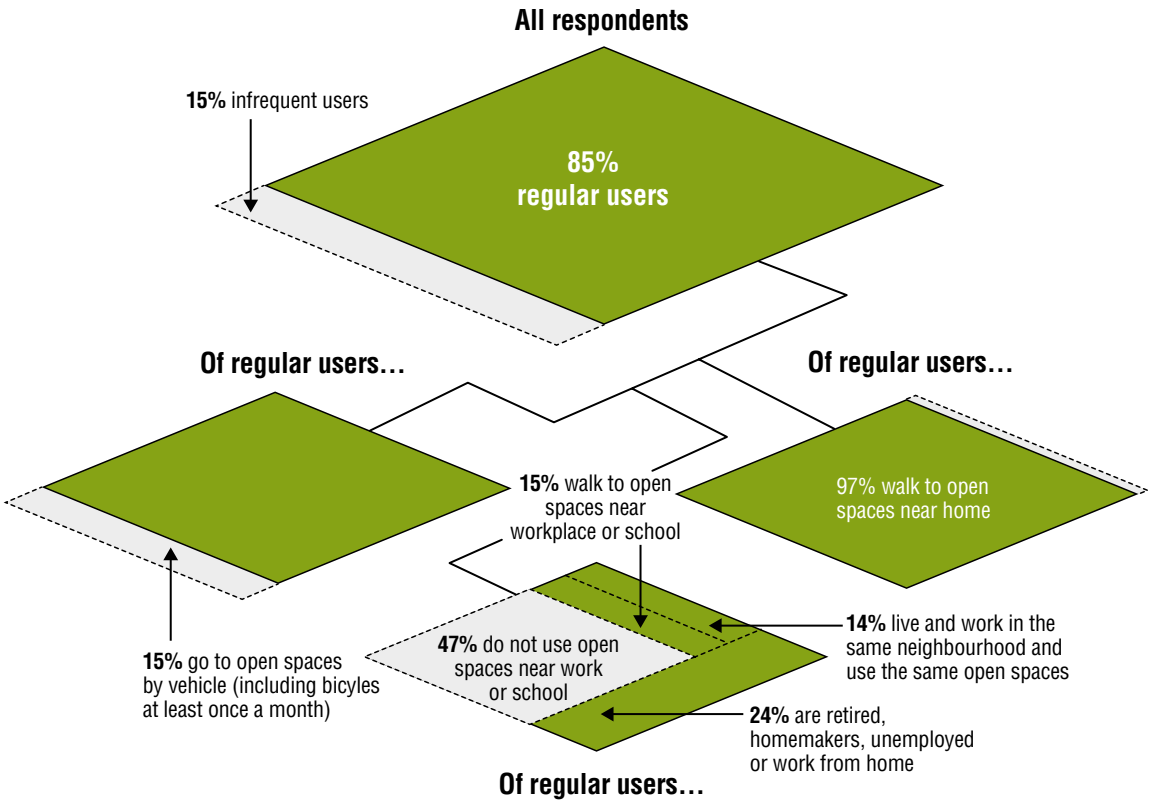
Pocket parks are small parks, typically less than 0.4 hectares, that serve a population of approximately 500 to 1,000 people within a five- to 10-minute walk. According to the National Recreation and Park Association, successful pocket parks have **four key qualities**:

- They are accessible.
- They allow people to engage in activities.
- They are comfortable spaces and have a good image.
- They are sociable places: ones where people meet each other and take people to when they come to visit.

Because pocket parks may not have parking, they should be accessible on foot or by bicycle. They should also accommodate different types of park users with an emphasis on the needs of people in surrounding neighbourhoods.

A Civic Exchange survey on open space found that 85 percent of respondents were regular park users. Of the regular users, 97 percent walk to open spaces near home, which are often the smaller park typologies that this toolkit addresses. About one-third of the regular users also visit parks near their workplace or school by walking, or because they live and work in the same neighbourhoods. Only 15 percent take vehicles (including bicycles) to open spaces, which are likely the medium-sized parks that serve the district-scale or regional parks. Given these travel patterns, the local open space typology is particularly relevant to Hong Kong residents' daily life and park use.

Open Space Travel Habits (Weighted)



Source: Civic Exchange, *Open Space Opinion Survey* (Hong Kong: Jockey Club Civic Exchange "Reconnecting Open Space" Programme, 2018).

Introduction

Before delving into best practices for creating, activating, funding, and maintaining pocket parks, it is important to recognize the unique urban context of Hong Kong and how it affects park development. Although many ways exist to create and manage pocket parks, the best practices in this toolkit are selected to work in dense urban environments like Hong Kong, where the parks are likely to be compact and surrounded by infrastructure or other development.

In addition to describing the Hong Kong context, the introduction provides an overview of the value of parks. By highlighting the many health, social, economic, and environmental benefits of parks, and their resulting value to residents, cities, and real estate, the introduction demonstrates the importance of parks and why small-scale park projects like these are valuable.

Source: Mark Johnson Photos

Hong Kong Parks in Context

To provide context for the rest of this toolkit, this section includes an overview of public space provision in Hong Kong, challenges with equitable access to parks, public space governance, and the potential of cross-sector partnerships.

Public Space Provision

Hong Kong is a densely populated city with about 6,300 people per square kilometre. According to the BBC, most residents live in only one-fourth of the city's land, with large parks surrounding the more populated areas. This land use pattern means that, although public green spaces exist on up to 40 percent of the total land area, residents may nevertheless need up to an hour, on average, to reach a large park in the countryside.

However, the city does provide a standard amount of open space per person in addition to these country parks. The Hong Kong Planning Standards and Guidelines originally introduced an Open Space Standard of 1.5 square metres of open space per person in urban areas, with an additional 0.5 square metre per worker in industrial areas. The standard increased in 2002 and is currently two square metres in urban areas plus 0.5 square metre per worker in commercial and industrial areas. This includes a minimum of one square metre per person of District Open Space and a minimum of one square metre per person of Local Open Space. After discussions for the 2030+ Planning Vision and Strategy, the city proposed to raise this standard to 2.5 square metres per person, and the city's planning department has published a plan to do so by 2030.

Types of Space in the Open Space Standard

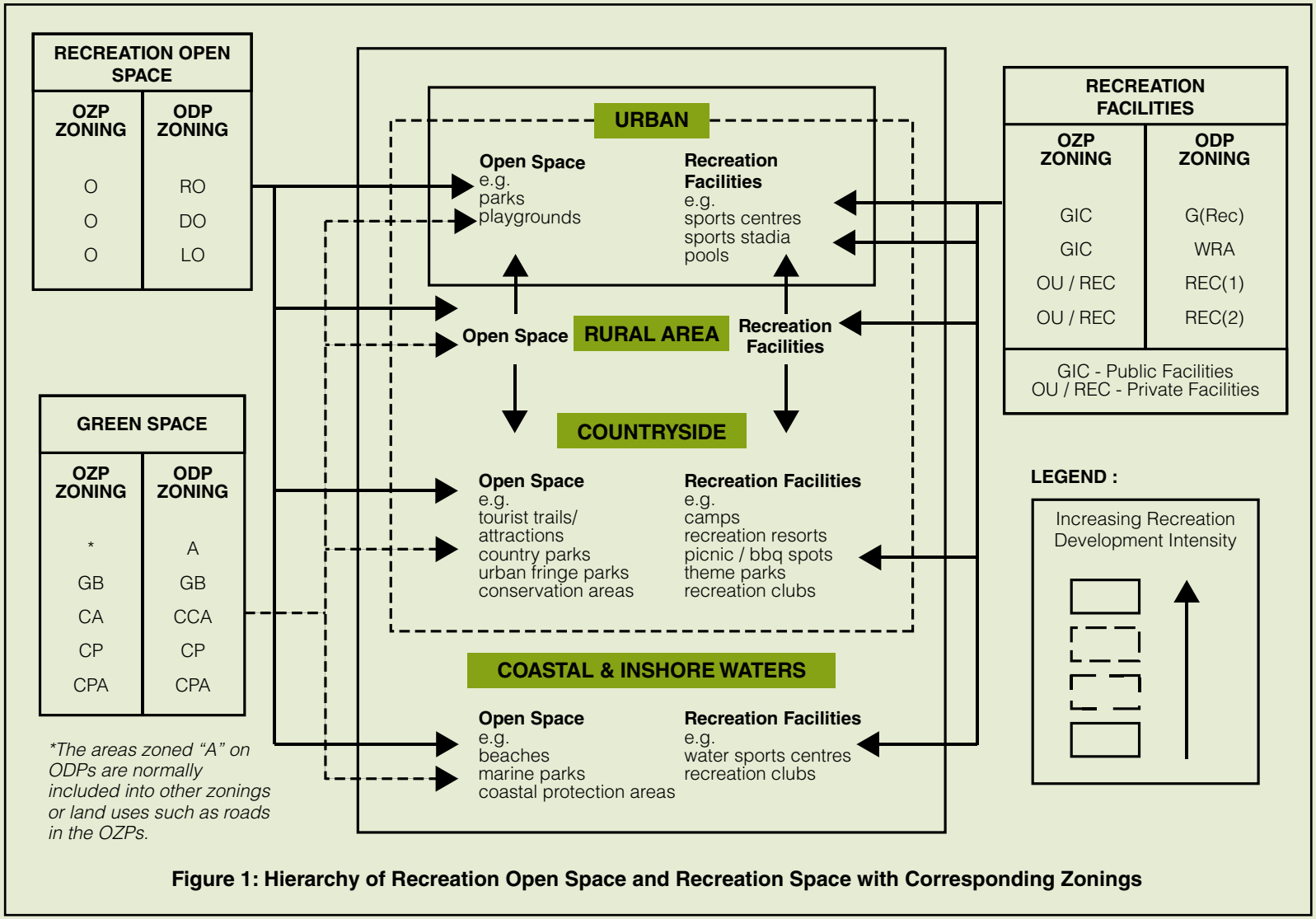


Figure 1: Hierarchy of Recreation Open Space and Recreation Space with Corresponding Zonings

Source: Hong Kong Planning Standards and Guidelines, Chapter Four.

Although the average actual open space per person in Hong Kong is 2.7 square metres – higher than both the current and 2030 requirement – a 2017 Civic Exchange study found that the requirements and actual rates of open space are generally lower than those in comparable cities. Moreover, pocket parks themselves are relatively small. Whereas an average pocket park in London is between 185 and 370 square metres, the average size in Hong Kong is about 92 square metres.

Pocket parks are one way to provide park space in this densely developed city environment where finding land for parks is challenging. Often known as sitting-out areas in Hong Kong, these tiny public spaces for passive recreation have become an important tool for creating parks in the footprints of old buildings, in irregular gaps between new complexes, or in spaces that have been added to comply with new setback requirements.

Urban Park Space per Person in Selected Major Asian Cities

Selected Major Asian Cities	Open Space Standard per Person m^2	Actual Urban Park Space per Person m^2 (most recent available)
Hong Kong (Countable Open Space)	2	2.7 (2012)
Hong Kong (Urban Park Space including ROS and HA, excluding Private)	—	2.8 (2012)
Mumbai[37]	2	1.1–1.2 (2015)
Tokyo[38]	—	5.8 (2013)
Seoul[39]	6	6.1 (2010)
Singapore[40]	8	7.4 (2015)
Shanghai[41]	—	7.6 (2015)

Source: Civic Exchange, *Unopened Space: Mapping Equitable Availability of Open Space in Hong Kong* (Hong Kong: Civic Exchange, 2017); notes omitted.

Equitable Access

Despite the average open space of 2.7 square metres per person, these parks are not equitably distributed across the city. A 2012 Civic Exchange report finds that these rates can be significantly lower, especially in older urban areas like Mong Kok where there is only 0.6 square metre of open space per person.

Even in areas that meet the open space requirements, access can remain a challenge. Public housing residents and people living in large private developments have dedicated open space, which is counted in the open space standard. Although these spaces are available to the public, they often feel closed off or seem exclusive. For nearby residents in smaller buildings without open space, these places may technically increase the quantity of open space but feel inaccessible, resulting in a lack of usable park space in the area.

20 Below-Standard Outline Zoning Plans (2012)

Rank	OZP name	Existing COS open space per person m^2	Existing LOS per person m^2	Existing DOS per person m^2
1	Mong Kok	0.6	0.6	0.1
2	Wan Chai	0.7	0.5	0.2
3	Mid-levels West	0.9	0.5	0.4
4	Causeway Bay	1.0	0.6	0.4
5	Kennedy Town & Mount Davis	1.0	0.8	0.2
6	Sai Ying Pun & Sheung Wan	1.1	0.6	0.5
7	Hung Hom	1.3	0.8	0.4
8	Kwun Tong (North)	1.3	1.3	0.0
9	Cheung Sha Wan	1.4	0.9	0.5
10	Yau Ma Tei	1.5	0.7	0.8
11	Mid-levels East	1.6	1.6	0.0
12	Shau Kei Wan	1.6	1.1	0.5
13	North Point	1.6	0.8	0.9
14	Ma Tau Kok	1.7	0.4	1.3
15	Ho Man Tin	1.9	1.2	0.7
16	Ma Wan	1.9	1.9	0.0
17	Ngau Chi Wan	1.9	1.5	0.4
18	Pok Fu Lam	1.9	1.6	0.3
19	Quarry Bay	1.9	1.3	0.6
20	Yuen Long	1.9	1.3	0.6

Figures may not add up due to rounding

Source: Civic Exchange, *Unopened Space: Mapping Equitable Availability of Open Space in Hong Kong* (Hong Kong: Civic Exchange, 2017).
Note: COS = Countable Open Space; LOS = Local Open Space; DOS = District Open Space.

Similarly, public open spaces in private developments are encouraged to have clear signage and not restrict public use. In practice, some developments continue to limit public access by limiting the allowed activities in the space or not providing adequate signage.

Finally, access to parks cannot be equitable unless the parks are high quality. The ULI report *Five Characteristics of High-Quality Parks* provides a framework for understanding and evaluating park quality using these characteristics:

- High-quality parks are in excellent physical condition.
- High-quality parks are accessible to all potential users.
- High-quality parks provide positive experiences for park users.
- High-quality parks are relevant to the communities they serve.
- High-quality parks are flexible and adaptable to changing circumstances.

In Hong Kong, although the Housing Authority provides a significant quantity of open space, Civic Exchange recommends that the HA increase its focus on providing high-quality spaces with additional greenery and seating, especially in older public housing estates. These estates also present an opportunity to integrate sustainability and resilience features.

Parks and Public Space Governance

The city provides public space in three main ways: through the Leisure and Cultural Services Department (LCSD), the Housing Authority (HA), and public open spaces in private developments. Although LCSD and HA manage most public open spaces, some are managed by special governmental bodies such as the West Kowloon Cultural District Authority and the Energizing Kowloon East Office, or by non-governmental organizations such as the Housing Society. The current government structure is under review, which may enhance the government policy support to the implementation of park initiatives in Hong Kong.

Notably, the Hong Kong Planning Standards and Guidelines require that both public housing estates and large private residential developments provide at least one square metre of local open space per person, and new sustainable building guidelines encourage additional open space and greening. Communal gardens in the large private residential developments count toward the two square metres open space standard because they serve "an identifiable residential population."

Other than these residential developments, privately owned spaces must be publicly accessible to be considered POSPDs, which also count toward the open space standard. POSPDs are owned and managed by private landowners with a public access requirement in their land leases, but the landowners can implicitly restrict access by categorizing certain activities as nuisances or disturbances. Policies enabling POSPDs were implemented after a period of rapid economic growth in the 1980s, and they were designed to balance residents' needs for public spaces with developers' commercial interests.

Open Space Provision in Hong Kong

Private Open Space

Leisure and Cultural Services Department (LCSD)
(And a few other government bodies e.g. West Kowloon Cultural District Authority, Energizing East Kowloon Office, Home Affairs Department)

1,040.1 ha

Housing Authority (HA)

670.8 ha

POSPD

49.4 ha

Public Open Space in Private Developments
Public access required under land lease conditions

Private Open Space

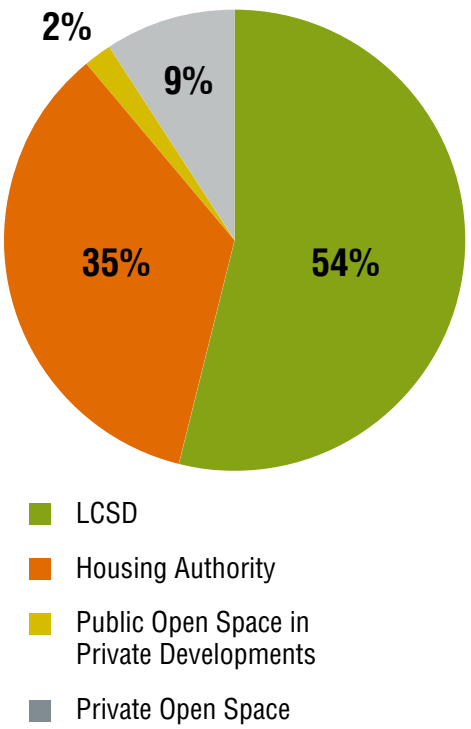
Private open space in large residential developments

172.4 ha

Public access not required

Countable Open Space towards 2 m² per person requirement

1,932.9 ha



Source: Civic Exchange, Open Space Handbook (Hong Kong: Jockey Club Civic Exchange "Reconnecting Open Space" Programme, 2018).

Potential of Cross-Sector Partnerships in Hong Kong

Cross-sector partnerships to plan, develop, operate, and fund parks and open spaces are common in nations throughout the world, but this is not a typical arrangement in Hong Kong. However, precedent exists for cross-sector partnerships in Hong Kong that benefit the public. For example, the Hong Kong government makes vacant government sites available for short-term tenancy by non-profit organizations for community, institutional, or non-profit-making purposes. A list of vacant sites is available from the Lands Department on the LandsD website.

Cross-sector partnerships are also used to fund museums, such as the Hong Kong Museum of Art (HKMoA). HKMoA is managed by the LCSD, but the non-profit organization Friends of Hong Kong Museum of Art partners with the LCSD with the objectives of "supporting and promoting the activities of the Hong Kong Museum of Art," including by engaging in annual fundraising.

The HKMoA partnership arrangement provides a possible model that could be adapted to the provision of parks and open space in Hong Kong. For example, non-profit organizations could partner with the government to identify and direct funds to support the development and operation of local green spaces. Such partnerships can generate a sense of belonging and stewardship over parks and open spaces for people and organizations, ultimately supporting their maintenance, use, and longevity.

Other opportunities and considerations related to forming cross-sector partnerships to support parks in Hong Kong include the following:

- Leveraging spaces owned by LCSD. Private-sector and non-profit organizations could partner with LCSD to provide parks and green spaces in strategic LCSD-owned locations. This would likely not require any new regulation if the ownership of such spaces remained with LCSD.
- Non-profit organizations leasing public land. In addition, regulations already allow non-profit organizations to lease land from the government and create public park spaces. In this scenario, park development could happen relatively rapidly.
- Using land owned by non-profit organizations and semi-public bodies. Another option is to create park space on land already owned by non-profit organizations and semi-public bodies, such as religious institutions and the Housing Society. Creating publicly accessible open spaces this way could likely be accomplished even more quickly than the option above. Existing examples include the Blue House, which features a small vest pocket park, and St. John's Cathedral, which allows people to use the property's public grounds at any time.
- Engaging the private sector. Finally, it may be possible to engage the private sector, including developers and corporations, to open up privately owned land for greening. This would require education and engagement efforts with such landowners to share information on how parks and open spaces can add value to their buildings, projects, and investments.

Lessons on How Cross-Sector Partnerships Support Parks Outside of Hong Kong

The following chart describes common cross-sector partners and roles related to park development, operations, and maintenance in various contexts across the world.

As noted previously, partners can range beyond the private sector. The Delivering Open Space in Partnership planning document from Victoria, Australia, notes that partnerships can help achieve a balance of conservation and recreation, aid in exploring locations for local governments to expand their park space where existing federal government land is underused, and ensure that parks meet local needs by working in partnership with the community from the beginning of the planning process.

Common Cross-Sector Partners and Roles from Cities across the World

Adapted from ULI, *Successful Partnerships for Parks*.

Sector	Entity/organization	Selected possible roles
Public sector	Parks departments/public agencies directly responsible for parks	Accountability/enforcing park access/operations agreements, leasing land for park development, managing partnerships, making capital investments
Public	Other city departments/ agencies (planning, economic development, mayors' offices, housing authorities, etc.)	Facilitating community engagement/park-visioning exercises, providing/coordinating park funding, integrating park and affordable housing development, identifying partnership opportunities, making capital investments
Private	Real estate developers	Creating/operating parks alongside development projects, contributing funding for nearby parks/park operators
	Landscape architects and other designers	Incorporating sustainable/resilient design into new and renovated parks, designing parks to meet community needs
	Building owners, businesses, and corporations	Contributing funding for parks, sponsoring events/programs
	Concessions and park-related businesses	Activating public spaces, contributing new sources of revenue to offset operation and maintenance costs
Non-profit	Community development corporations	Providing programs/services that leverage park development/ access, spearheading affordable housing and housing preservation efforts to mitigate potential park-related displacement
	Neighbourhood/community groups	Advocating for new or improved parks, working with partners to ensure that parks reflect community needs, organizing clean-ups
	Business improvement districts	Developing and maintaining parks, organizing park events/ programs, making capital investments
Philanthropic	Private foundations/individual donors	Contributing funding for parks; spearheading park-related cross-sector collaboration/coordination; advancing health, resilience, and social equity priorities

Private-Sector Partners

Many cities have found that private-sector partners can support park development beyond land ownership and may excel at expanding park access in various ways. The following chart describes the strengths of these partners in supporting parks.

Strengths of Private-Sector Partners in Supporting Parks

Strength	Details
Efficiency and flexibility	Ability to act quickly and flexibly, experiment on innovative park programs, and potentially spend less money on park development and operation than public-sector agencies responsible for parks
Advocacy	Capability and political will to publicly support initiatives like park budget increases, parkland acquisition, etc.
Fundraising and donations	Potential to raise private funds for parks because of ability to have greater control over how money will be spent
Focus	Capacity to holistically focus on supporting specific park assets; greater attention to detail
Consistent leadership	Relative independence from election cycles, allowing for more constant leadership

Source: Adapted from Project for Public Spaces, *Public Parks, Private Partners* (New York: Project for Public Spaces, 2000).

Value of Pocket Parks

Parks have a variety of health, social, economic, and environmental benefits, and they create value for residents, city governments, developers, and building owners, among others.

Even pocket parks – the focus of this toolkit – have notable benefits. However, pocket parks are not intended to serve an entire city, as district or regional parks do. Because they are designed to meet the needs of the immediately surrounding community, pocket parks are most effective when tailored to their specific context and focused on the benefits most relevant to those neighbourhoods.

Source: May Chow

Benefits of Pocket Parks

The National Recreation and Park Association lists these benefits of pocket parks, showing how even the smallest open spaces can serve communities.

Pocket parks:

- Support the overall ecology of the surrounding environment;
- Help protect and conserve local wildlife, landscape, and heritage;
- Reduce pollution, traffic, and consumption of resources, such as oil;
- Empower local residents to make decisions that affect their community;
- Make communities safer and more sociable;
- Improve fitness and health;
- Regenerate run-down areas; and
- Reinforce relationships between local authorities and communities.

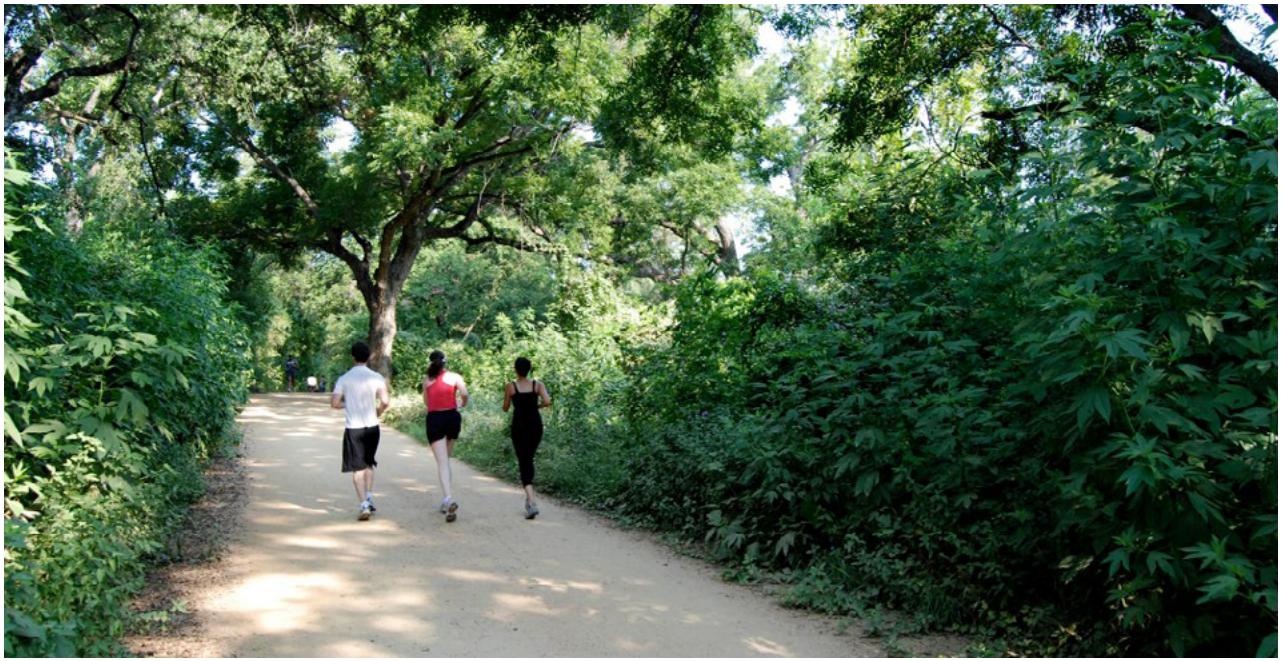
The Importance of Parks in Enhancing Resilience

According to the Hong Kong Planning Department, the effects of climate change on Hong Kong include more frequent heavy precipitation, sea-level rise, rising temperatures, and extreme heat. Parks present an important opportunity to promote community and climate resilience, with resilience defined as "the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events."

Green infrastructure – including parks and gardens – can support urban resilience by "moderating urban temperature, regulating water flow, controlling flooding, enhancing environmental capacity and resilience, and mitigating and adapting to climate change and hazards."

Common park resilience strategies include providing shaded areas, adding drought-tolerant plants, and building living shorelines, new wetlands, and greenways designed to be underwater during floods. Parks can also enhance resilience by providing safer spaces to congregate or engage in exercise during times of disruption, and by supporting daily quality of life and improved resident health outcomes.

Increasingly, parks are designed to function as resilience hubs – community resource centres that are created with flexible designs to accommodate uses that differ from their everyday uses during disruptions and recovery periods. Examples of park amenities that enhance both daily use and are advantageous during disruptions include wi-fi access, cooling centres, and resilient power options.



Source: The Trail Foundation

Public agencies that manage parks – often working closely with private, non-profit, and philanthropic partners – are key actors in community resilience because they are often major landowners with opportunities to invest in natural infrastructure through the creation, management, or enhancement of public space. However, the ability of such agencies to prioritize resilience may be limited because of budget or capacity restraints, making creative partnerships and funding approaches even more beneficial.

Cross-sector partnerships – such as those that advance real estate projects with significant park components – can enhance resilience by helping address the effects of climate change in numerous ways, including protecting against water-related events and mitigating heat-island effects.

Parks, Extreme Heat, and Health

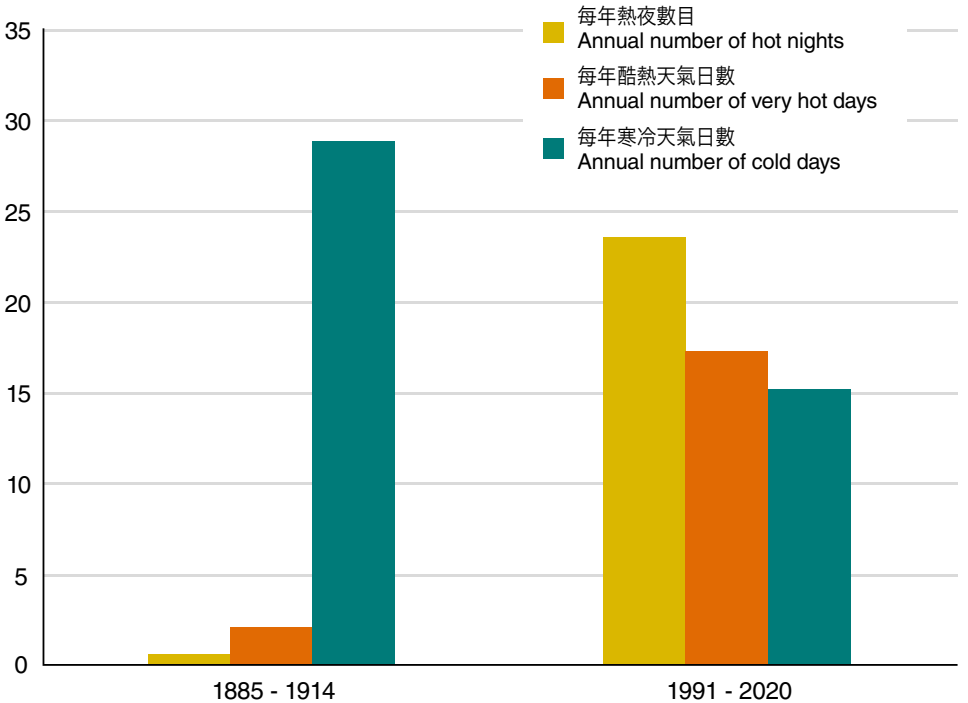
Providing access to parks can improve public health, including by mitigating the effects of extreme heat. Extreme heat compromises human cardiovascular and respiratory systems, making high temperatures a pressing public health risk, particularly for low-income and senior communities.

The most universally applicable resilience design strategies to combat extreme heat are the creation of shade and the preservation of open space. Parks create "cool green space islands" that reduce surrounding air temperatures by at least 1.1 to 2.2 degrees Celsius. More specifically, it is estimated that every 100 square metres of vegetation added to a park can result in a 1°C decrease in air temperature. This cooling effect can extend beyond the park or green space itself.

The value of parks in potentially mitigating extreme heat in Hong Kong is significant. According to the Hong Kong Observatory, "over the past hundred years, the number of hot nights (days with a minimum temperature of 28°C or above) and very hot days (days with a maximum temperature of 33°C or above) in Hong Kong has increased while the number of cold days (days with a minimum temperature of 12°C or below) has decreased."

The Hong Kong Planning Department's 2012 study "Urban Climatic Map and Standards for Wind Environment" noted that water bodies and "pockets of green oases" in urban areas are useful in mitigating the urban heat island effect. Vegetation can affect the "solar exposure of pedestrians and the wind speed on the streets" and the process of evapotranspiration in plants absorbs heat from the air which cools the surrounding air temperature.

Changes in the Annual Number of Hot Nights, Very Hot Days, and Cold Days in Hong Kong



Source: Hong Kong Observatory, "Climate Change in Hong Kong – Extreme weather events."

Social and Economic Benefits of Park Access

ULI's report *Successful Partnerships for Parks* explains that by shaping community identity, serving as the backdrop to social interactions among different groups, and providing spaces where people of every background can feel welcome, green spaces, parks, and playgrounds can help strengthen neighbourhood social cohesion. Parks can also help prevent chronic illnesses and reduce symptoms of depression. The positive effects of exposure to green spaces are often amplified in lower-income areas.

The Hong Kong Planning Department notes the importance of parks and green spaces, stating that they are "essential in providing the necessary venues for developing and enriching social cohesion and interaction which are fundamentals to a quality living environment. Providing green spaces close to living spaces and making them accessible also helps provide restorative environments."

There is growing recognition that mental health is one of the most neglected and important issues to consider in urban planning and development. Green spaces located near residential areas can support mental health and stress relief for Hong Kong residents – especially given the high population density of the city.

Pocket parks can increase social equity by bringing the benefits of larger urban parks to areas that may be currently underserved. Although finding new land for parks can be challenging, small-scale projects – including ones in underused spaces such as flyovers – can ensure that everyone has a high-quality park within a 10-minute walk of home. Moreover, parks' health and environmental benefits may be greater in neighbourhoods that disproportionately face environmental justice issues. Whether addressing increased flooding, extreme heat, or other environmental health issues that can stem from disinvestment, parks have the potential for an outsized impact.

A research team from the University of Pennsylvania's Perelman School of Medicine has found that distressed neighbourhoods where vacant lots have been converted into small parks and community green spaces are associated with reduced crime when compared to neighbourhoods with unimproved vacant lots. In some sections of the city, residents of neighbourhoods with improved vacant lots also reported "significantly less stress and more exercise," suggesting that the improvements affected residents' perceptions of safety outdoors. The team also noted that studies have shown that the presence of urban green space is linked to lower rates of mortality and health complaints and to mental health benefits.

Finally, parks can generate economic benefits by supporting property values, drawing people to nearby businesses, and generating new revenue that can be used to fund park operations. A study from the *Journal of Leisure Research* found a property value premium of 8 to 10 percent on properties abutting or fronting passive parks in urban environments. Furthermore, the study noted that parks have especially substantial impacts on property values at distances of up to roughly 183 metres.

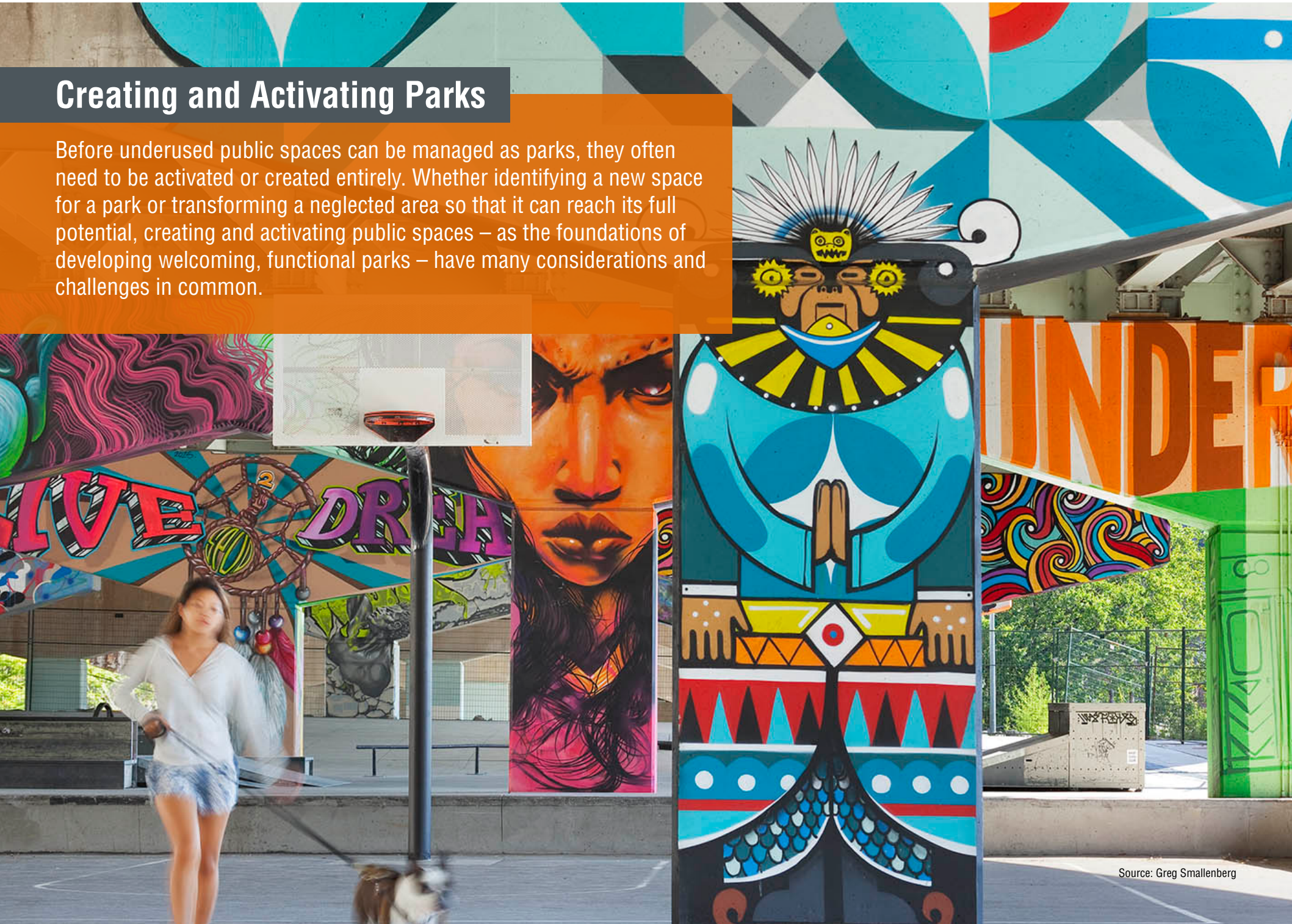
Source: New World Development Company Limited

High-quality public parks and open spaces can also draw new businesses and visitors to cities. In the U.S. city of Detroit, Michigan, the US$19 million (HK$148 million), one-hectare Campus Martius Park helped attract new companies and redevelopment to downtown after it opened in 2004, as explored in an article published by the Lincoln Institute of Land Policy. In recent years, it has attracted over 2 million visitors annually and has helped catalyse more than US$1 billion (HK$7.77 billion) in real estate investments around the park, with billions more development dollars projected in a pipeline that would also lead to thousands of jobs.

When cities capture the value of parks, they can reinvest the revenue in communities and leverage parks for economic development. For example, many cities in the United States use tax increment financing and other value-capture tools to create a new revenue stream that can then be directly reinvested in the park and surrounding community. The ULI report *10 Principles for Enhancing Equitable Access to Parks* describes how cities can capture and leverage the value of parks for community benefits.

Creating and Activating Parks

Before underused public spaces can be managed as parks, they often need to be activated or created entirely. Whether identifying a new space for a park or transforming a neglected area so that it can reach its full potential, creating and activating public spaces – as the foundations of developing welcoming, functional parks – have many considerations and challenges in common.



Source: Greg Smallenberg

Creating Parks

Many considerations inform the creation of new parks. This section gives an overview of the guidelines for publicly and privately owned public open spaces in Hong Kong before discussing approaches for identifying new park sites and best practices for planning and design.

Park Guidelines in Hong Kong

The government of Hong Kong provides comprehensive design guidelines for publicly and privately owned parks. When creating new parks, owners should consult an AP to ensure that they are acting in accordance with these guidelines and with land use regulations.

Currently, owners may not implement land uses not explicitly permitted in their land tenure documents, a limitation that significantly restricts parks' functionality. Short-term uses are more commonly permitted because of their temporary nature, whereas new long-term permitted uses are rarely accepted. However, the government can review and amend these documents with extensions that would allow more flexibility, enabling parks to pilot – and potentially make permanent – additional uses such as outdoor dining. Updating these regulations would expand the options available for park activation and help ensure that parks can adapt as community needs change.

Chapter Four of the *Hong Kong Planning Standard and Guidelines* is titled "Recreation, Open Space, and Greening" and includes locational and design guidelines. When determining a location, local open space should be within a 0.4-kilometre walk of the residents it intends to serve, may be provided at the podium level in housing developments, and can act as a buffer between industrial areas and adjacent uses. In addition to considerations for recreational facilities and greening, the general design guidelines aim to create a safe, welcoming environment for all demographics. The guidelines include the following:

- Prioritizing safety with respect to the location, facilities, and play equipment;
- Enhancing use by making the entrance easily identifiable and accessible;
- Retaining existing natural landscape features to create a local identity;
- Providing adequate lighting in shaded sitting-out areas and other necessary street furniture;
- Integrating open space and play areas for children, adults, seniors, and people with disabilities to create diverse and intergenerational places;
- Guaranteeing facilities are accessible for seniors and those with disabilities, particularly public toilets, shaded planting areas for walking and sitting, adequate lighting, emergency phones, sensory walking areas, and ramps with handrails; and
- Ensuring safe access, such as providing safe crossings where access routes cross busy roads.

In addition, Chapter 11 covers Urban Design Guidelines and has additional considerations and requirements, such as the following:

- Well-landscaped open spaces with a balanced mix of hard and soft landscapes should be encouraged to meet the functional requirements for active and passive recreational uses. Detailed micro-scale landscape design should be site specific to maximize legibility, to create a comfortable environment, and to green the city. Focal landmark features should be provided in open spaces to create orientation and a sense of place.
- Open spaces should also be encouraged at ground, podium, and roof levels of developments accessible by users. Where practicable, developments should allocate more ground-level space for landscaped open spaces.

  Public accessibility to open spaces should be maximized. Visual linkage can help direct pedestrians to open-space facilities and should be enhanced. The flexible use of open space should also be encouraged to maximize the usage and amenities for the public.

  High-quality street furniture should be provided to complement the character of the area or the adjacent developments. Due considerations should be made for persons with disabilities in the design of street furniture, crossings, tactile paving, braille information boards, etc.

  To maximize pedestrian comfort, tall trees with wide and dense canopy should be planted in entrance plazas and setback areas, while causing minimal wind blockage to the pedestrian level.

  Public open spaces in private developments have separate design and management guidelines. These guidelines help ensure that public access is easily identifiable, but in practice, many POSPDs do not have clear signage or even discourage people from using them by restricting certain activities or limiting the amenities like seating that would make the space more usable.

Approaches for Identifying New Park Sites

Mapping and Data. Mapping and data can help cities identify areas where parks are needed and likely to be successful. For example, the Bank of America project has created a tool for volunteers to map parks around Hong Kong and track data about the condition of each space to help determine which open spaces could benefit from activation.

Mapping can also help uncover creative solutions where limited land is available for new park space. The ULI report *Pavement to Parks* and the *Open Space Resource Guide* in Victoria, Australia, both showcase how cities have leveraged underused sites to create new parks. These parks exist under flyovers, in former parking spots, and more, demonstrating how land use challenges can become open-space assets. Rooftops can also serve as creative park space, but these parks must be accompanied by clear signage and other accessibility measures to promote public use. In Hong Kong, an additional opportunity exists in the spaces left behind by former shop houses known as *tong lau*. Many have been demolished, leaving small gaps between buildings where pocket parks have begun to appear today. At the end of this toolkit, the case study on Kic Park in Shanghai demonstrates how this type of interstitial space can be transformed into a park.

When identifying new park sites, the surrounding environment plays a role in understanding how people use the parks and what barriers may exist. When a community has a network of small parks, not every park needs to address every need. If a nearby park has a playground for children, others in the area can prioritize different demographics and their preferred activities. However, this sharing of uses is only possible when the spaces are easily accessible from other points in the network.

Moreover, nearby destinations can shape who uses the park and how. For example, a pocket park among office buildings is more likely to attract employees who need comfortable seating to eat their lunch outside. Mapping and data collection can help determine the number of nearby parks, their uses, and the population they are serving. Finally, several factors can make parks more accessible, such as public transit and active transportation infrastructure, clear entry points that connect to safe sidewalks, and surrounding connections (such as street crossings) that are safe and accessible for people with mobility issues.

In addition to explaining where parks could be created and their surrounding context, data can expose disparities in who parks serve. Several methods can be used for counting park users – such as in-person counts, automated trail counters, online sources such as Google Places, and permits – and some can collect demographic data. Breaking down data by race, gender, age, and ability can show who is accessing different parks and services and whether the population of park users reflects the whole community. Additional types of data collection like interviews and surveys can help explain any inequities in park use, helping cities create parks that meet all community members' needs. Data layers other than demographics can also shed light on who is underserved by parks and may be most useful, taking into account neighbourhood factors such as tree canopy or housing density.

A comprehensive example of mapping and data in Hong Kong is the Neighbourhood Innovation Lab, which used mapping and data to better understand open-space provision in Wan Chai. The resulting report, *Wan Chai Open Space Research*, assesses how frequently people use different types of open space and their activities, each site's condition, the distribution of open space, and disparities in groups of users. This data ultimately informed recommendations on enhancing open space in Wan Chai. By combining several types of data, other districts can similarly gain a holistic understanding of their open spaces and how to improve them.

Site Acquisition and Control. In Hong Kong, sites are typically acquired and controlled either by the government or as part of private developments. In some cases, the parks are privately redeveloped as part of a larger project and then turned over to the government.

Even when the land is purchased and owned by the city, many possibilities exist for allocating roles and responsibilities. For example, the government may acquire the land with an agreement that a foundation or other organization will run and maintain the park.

A variety of different non-profit groups – such as Friends of Parks groups, park foundations, and park conservancies – can take on these responsibilities in addition to coordinating volunteer efforts, philanthropy, advocacy, and fundraising. Moreover, business improvement districts can have similar roles in designated commercial areas. The section on parks and public space governance above describes these arrangements and their advantages in more detail.

In Hong Kong, currently unused Open Space zones indicate sites for future parks. These zones are reserved on Outline Zoning Plans to designate the intended use of an area, but before the open-space zoning can be implemented, the plot of land must have either a plan and funding from the government or a private developer building on an adjacent plot who will redevelop the land before turning it over to the government. To expand the amount of space where parks can be newly developed, a Civic Exchange report recommends that the government review these unused zones and assess current barriers to development, ensure the land is usable, and identify plots that can be fast-tracked in areas that are currently underserved.

Community Co-creation. Community co-creation is another important element of identifying new park sites. Going beyond traditional community engagement that seeks input from community members, co-creation empowers community members to be an equal part of park development. When communities are seen as partners, the resulting parks better reflect their culture and interests and meet their needs, making the parks more relevant to the people they serve.

A public engagement project by Civic Exchange recommended conducting community engagement at the district level to understand the needs and preferences of residents, especially when there are conflicting priorities (like differing preferences among age groups on whether to allow dog-walking in the area). For pocket parks, conducting this engagement at even smaller scales may also be appropriate. Community asset mapping can help identify gathering places near the potential park, such as schools and libraries, which can serve as initial points of engagement with community members.

In Hong Kong, one example of community co-creation is the playground at Tuen Mun Park. The LCSD held an Inclusive Play Space Design Ideas Competition to engage the community in the design process for the playground. The winning design had water and sand elements, facilities that accommodate children of different ages and abilities, and play equipment for climbing, interacting, and taking on new challenges. This process may be adapted to different park projects going forward, and the Design Trust Phase One is now completed.

In addition to facilitating community involvement, park agencies also "fulfill the community's vision for the parks," according to the National Recreation and Park Association. By developing an implementation strategy, prioritizing immediate improvements that benefit park users, and identifying any trade-offs to maximize the benefits of pocket parks, cities can develop new pocket parks that effectively deliver on the community's vision. However, common issues in the development of pocket parks include limited resources and staff capacity, too few pocket parks to meet the demand, insufficient staff training, and not enough volunteers. All of these challenges can hinder a city's ability to translate the community's concept into a high-quality park.

Source: Greg Smallenberg

Planning and Design

After identifying a new park site, cities can plan and design the pocket park, continuing the community co-creation phase throughout. This section gives a high-level overview of some best practices in park planning and design, and then describes how cities can intentionally maximize the many co-benefits of parks to create healthier, more climate-resilient places.

For privately owned pocket parks, the best practices should follow the Public Open Space in Private Developments Design and Management Guidelines. Publicly owned pocket parks should follow the Hong Kong Planning Standards and Guidelines.

Best Practices. Many best practices for park creation exist, but this section focuses on those most relevant to pocket parks that are often surrounded by infrastructure or development and used for passive recreation. Because this toolkit also focuses on parks that are created on formerly underused land, constraints to implementing these best practices may arise, such as low soil quality to support vegetation or differences in site size, shape, and topography. However, these best practices are flexible and can be adapted to the challenges and opportunities of each space.

Safety, Comfort, and Usability: According to ULI's *Five Characteristics of High-Quality Parks*, parks should be designed to be safe and comfortable for users. Lighting, signage, and emergency call boxes can increase perceptions of safety and make pocket parks safer, as can avoiding creation of deserted areas within the park by distributing amenities throughout the space. The amenities should be comfortable for everyone who spends time in the park, regardless of age, ability, or any other aspect of their identity. Amenities can include seating, sheltered areas, restrooms, drinking fountains, and wi-fi or charging stations. Many of these rely on basic site utilities, including electricity, water, waste disposal, and a connection to a sanitary sewer system. Well-maintained essential services, such as restrooms, should be available on site or nearby.

However, the BBC reported that not all parks in Hong Kong are actually usable as parks because of regulations that prevent sitting on the grass, eating, touching the plants, and more. The design of amenities can create additional restrictions. For example, people cannot sit on a public fountain if the side is uncomfortably tilted. Moreover, it is common to see furniture designed to prohibit uses, such as benches with central metal armrests that prevent people from lying down to sleep. This creates a hostile environment for the targeted groups – often people experiencing homelessness – and makes the park feel unwelcoming. By making the park experience convenient and inviting – without overly restrictive rules or unwelcoming features – cities can make parks more attractive and draw in new park users.

Another aspect of comfort is protection from heat, which climate change will continue to intensify. Trees and other green infrastructure can cool the park area and provide shade, as can shelters. Just as natural infrastructure can serve multiple purposes – mitigating the urban heat island effect, reducing flooding, enhancing mental health, creating an aesthetically pleasing park environment, etc. – shelters can provide shade while embracing creative place-making tactics (such as having a local artist draw a mural on the shelter), creating spaces that encourage social interaction, and using sustainable building materials.

Vegetation and Natural Elements in Playgrounds: When planting vegetation, the Civil Engineering and Development Department keeps a list of plants allowed in urban parks as part of the Greening Master Plan. The plants vary by district and are chosen based on environmental, visual, and ecological characteristics, as well as their growth because their mature size affects their spacing in pocket parks.

Some pocket parks also have small playgrounds. In parks where play is encouraged, there should be spaces for parents to sit and supervise the play area, providing amenities for them as well. Moreover, the playgrounds can incorporate nature play by featuring boulders, logs, stumps, and sticks.

Accessibility: Finally, clear signage and well-marked, safe, convenient access points can ensure that people are aware of the park and able to access it. Signage can include information about the park and its amenities, and to be as useful as possible, it should be in visible locations, in good condition, and in all languages spoken in the surrounding community. In addition to having signage, the access points should be inviting and safe, with convenient street crossings, adequate lighting, and multiple convenient entryways.

When pocket parks are planned and designed using best practices, including those described in the preceding section, they can go above and beyond the official planning standards and better serve their users as excellent public spaces.

Source: Greenway Conservancy

Maximizing Co-Benefits. Although district-scale or regional parks often provide a greater potential for environmental co-benefits than smaller parks, maximizing the co-benefits of pocket parks can ensure that they have as much impact as possible. For example, green infrastructure absorbs stormwater, adds natural features, enhances mental health, prevents runoff that affects water quality, improves air quality, and can reduce heat. Green infrastructure in larger parks can also provide recreational opportunities and wildlife habitats, which is possible only to a lesser extent in pocket parks. However, greenery in regional parks is not as able to address local issues, such as a flooding-prone block, as pocket parks. Given the need to create climate-resilient cities, maximizing the environmental co-benefits of parks at all scales is becoming increasingly important.

Small ponds can help with stormwater management while improving access to nature for children, and recreational boulders also add to a natural aesthetic. To maximize space, some water features like splash pads can be used for cooling on hot days but can otherwise be turned off and used as a plaza. Tables can include built-in games like chess for a variety of users to enjoy. Where possible, community gardens can improve food access, provide opportunities for social interaction, and include educational signage and programming.

Moreover, even pocket parks can encourage better physical and mental health. Pocket parks can often accommodate small exercise classes, and many users walk to and from the park. Greenery and exposure to nature can amplify the mental-health effects of parks. So, when designing climate-resilient features, using nature can not only enhance the aesthetic of the park but also promote health.

Hong Kong's 2016 Green and Blue Space Conceptual Framework, which remarks that "Green and blue spaces are integral parts of a liveable compact city," elaborates on the wide-ranging benefits of nature:

- Carbon sequestration;
- Pollution amelioration;
- Noise abatement;
- Stormwater management;
- Relieving the urban heat island effect;
- Improving microclimates;
- Enhancing biodiversity;
- Providing visual relief;
- Enhancing the quality of living;
- Improving well-being;
- Helping retain and attract talent as global cities compete;
- Developing and enriching social cohesion and interaction; and
- Contributing to physical and mental health and stress relief.

Parks also have a variety of opportunities to incorporate social and cultural considerations. Creative place-making strategies can reflect the cultures within a community and celebrate the history of a neighbourhood. When designing spaces for social interaction, which improves social cohesion and can contribute to better health outcomes, features like murals by local artists and boldly painted street furniture can encourage people to come together. And public art can draw new people to the park and its surrounding area, increasing foot traffic for nearby retail.

These are just a few examples of the many ways pocket parks can maximize their impact through intentional design of spaces that generate multiple benefits. Different strategies will make sense in varying contexts, but careful planning can help ensure that the park supports relevant health, environmental, social, and economic goals.

Activation

In addition to creating new parks from underused public spaces, the usage of existing parks has the potential to increase when parks are activated through programming, design, and temporary uses. Given limitations on the feasibility of "pop-up" interventions in Hong Kong, this section focuses on activating spaces through renovations, such as creative seating options. Because the Bank of America project includes a demonstration site, this section also explores how even short demonstrations can show what is possible when parks and other public spaces are activated.

Although most of the strategies apply to both privately and publicly owned parks, POSPDs especially need clear signage to make them welcoming and accessible. Ensuring that community members know about the park, recognize that they can use it, and have a sense of belonging while in the park is the foundation of park activation. Otherwise, people will not want or be able to visit the park and enjoy its benefits.

Source: John December

Reasons to Visit and Related Amenities

The Project for Public Spaces has introduced a concept called the "Power of 10+", which says that successful public spaces offer users at least 10 reasons to be there, such as places to sit, playgrounds to enjoy, art to touch, music to hear, food to eat, history to experience, and people to meet. When activating a park, it is important to understand how different features lend themselves to the reasons people may use a park and to capitalize on those opportunities. For example, benches provide a place for people to eat, rest, socialize, and supervise children. As part of a park activation strategy, existing benches could have garbage cans nearby to accommodate people eating, wi-fi and a charging station for people to charge their phones while resting, or other benches in strategic locations that encourage conversation and enable parents to chat while still being able to easily see their children.

Source: May Chow

One example of a park activation strategy in Hong Kong was demonstrated using prototypes by the Design Trust Futures Studio, which is now working with the city on implementation. At one park, the designers noticed that many of the elderly park users were sitting on or squatting by planters. So, they added bright pink moveable seats and tables to address the shortage of chairs. During the demonstration, people responded positively to the bold and playful colour but expressed concerns that the steel material would be stolen. Another prototype added a slide and tunnel to the Yi Pei Square Playground, which was especially popular with young children and encouraged a sense of discovery. Finally, a third prototype in a park located under a flyover included an LED installation and the possibility of climbing nets to make the most of the vertical space available.

These activations focused on improving the park quality and responding to user needs, thereby making the parks more welcoming and giving people a reason to go there. Each activation prototype had a clear audience, such as existing elderly users or young children, and used simple renovations to make the parks more appealing to them. Moreover, the short-term demonstrations enabled the designers to see what worked and receive community feedback. Although temporary uses are less common in Hong Kong than elsewhere, these types of demonstrations can also serve as "pop-ups" that help assess which uses may be most successful for future programming.

Preferences for Park Improvements

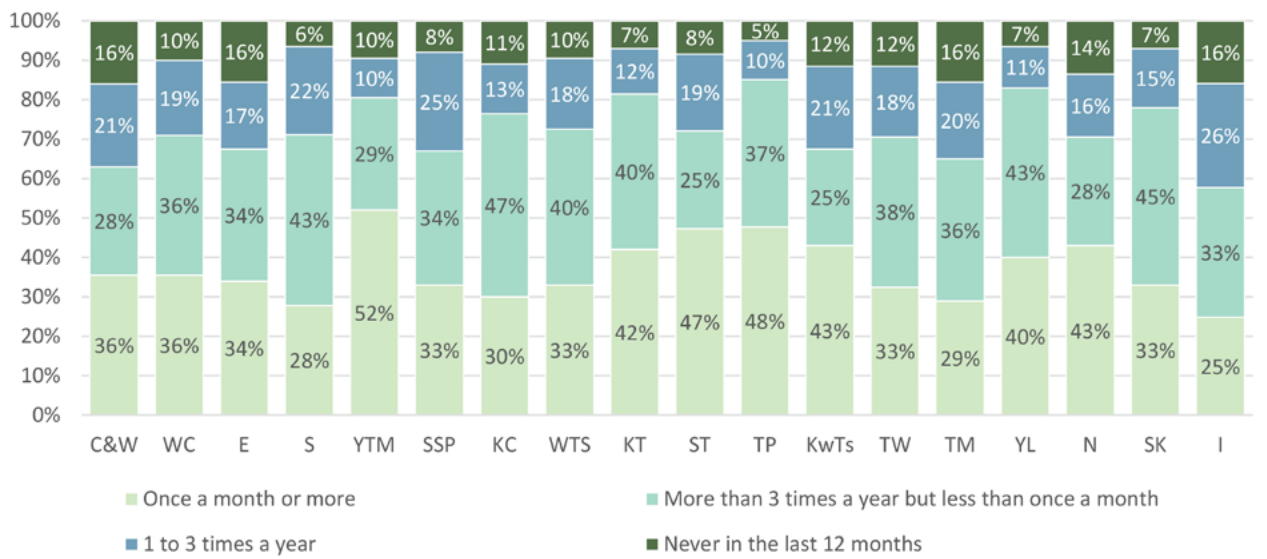
Equity is also an important consideration in park activation. Whether beginning new programming or installing different features, the park should remain safe, accessible, and free or affordable for all park users regardless of age, ability, or income. Safety features for the elderly, such as handrails and non-slip paving, can accompany different renovations and improve the park experience.

However, different users may prefer differing improvements to open spaces, as an open space opinion survey from Civic Exchange describes. For example, young adults are more likely to view dog-walking as an acceptable activity in parks, whereas older people tend to think this should not be allowed. Activation strategies should aim to be inclusive and accommodate the needs of different users while addressing potentially conflicting desires through strategies such as pilot projects and time-based rules, which match allowable activities to the times when different demographic groups are most likely to use the park.

Preferences for various amenities and their use can also differ by district. While over half of respondents in Yau Tsim Mong used small playgrounds and sitting-out areas at least once a month, only 25 to 30 percent of respondents in the Islands District, Southern District, and Tuen Mun used these amenities at that rate. This could indicate the varying prevalence of pocket parks with these amenities across districts, but it could also reflect differences in preferences and demographics. Understanding the local context and existing network of parks can help ensure that any renovations or programming meets the community's needs and will be used.

Although some renovations, including additional seating and shade, are shared among all age groups and districts, the ideal implementation may still vary. Many people across all age groups – and especially among the elderly – enjoy standard benches, but a substantial minority of mostly younger people would prefer creative seating types that allow users to recline. These types of furniture design could attract more young people, but standard benches should still be provided to accommodate users of other ages. Similarly, different preferences in allowable programming and in types of programming should be taken into account when activating parks.

Usage Frequency of Small Playgrounds and Sitting-out Areas by District



Source: Civic Exchange, *Open Space Opinion Survey* (Hong Kong: Jockey Club Civic Exchange "Reconnecting Open Space" Programme, 2018).

Maintenance to Support High-Quality Parks

Maintenance and funding strategies are necessary to support newly created or activated parks in the long term. Because the Bank of America project will have two-year installations, the sections on maintenance and funding strategies focus on transitioning parks from grant-funded, short-term projects to more permanent support, and especially public/private partnerships.

Well-maintained parks and other public spaces are welcoming, promote feelings of safety, encourage community stewardship, and boost civic trust, making excellent physical condition a key characteristic of high-quality parks. Without the investments that keep parks functional and attractive, people are less likely to use and enjoy them. So maintenance is an essential part of supporting any newly created or activated parks in Hong Kong. This section first gives an overview of best practices for maintaining pocket parks and other forms of local open space and then discusses different arrangements of roles and responsibilities for maintaining parks.

Source: Ryan Kelly

Best Practices for Maintenance and Operations

Proactively seeking input from community members can help cities evaluate how well parks are maintained and what types of maintenance could improve their quality. Just as community engagement is essential in park creation, getting the perspectives of both park users and nonusers can help cities assess site condition, how people use the parks, and what they would like to see changed to improve the parks' quality. Data, including spatial data and key indicators, can also enable cities to audit their parks and better understand areas for improvement.

Civic Exchange recommends that the Housing Authority can improve the quality of open space in older estates. They also note that, even beyond these specific spaces, many pocket parks in Hong Kong are "sparsely planted, lack adequate seating, and are laid out in ways that do not allow flexible use of the space or are inconvenient for social interaction." Overly restrictive rules compound these issues, making it even more difficult for people to use the parks.

The *Public Open Space in Private Developments Design and Management Guidelines* give specific guidance for privately owned, publicly accessible parks.

To fund these maintenance strategies, the National Recreation and Park Association recommends securing long-term and short-term funding from a range of sources, including grants, in-kind materials and money from businesses, corporate sponsorships, and more. Any funding plan should prepare for future maintenance and repairs.

Roles and Responsibilities

Although parks are most commonly under public management, representatives and organizations from all sectors can contribute to park maintenance and operations. The decentralized location of pocket parks can present special challenges for public-sector agencies if their locations have disproportionate impacts on operations and maintenance costs. In such instances, cross-sector partnerships where public- and private-sector entities share the financial liability, maintenance responsibility, and community benefits can be useful.

Cross-sector partnerships can bring the capabilities and competitive advantages of different actors to bear, creating and sustaining parks that advance equity as well as marrying the resources and skills of the public, private, non-profit, and philanthropic sectors with community goals.

People might not intuitively think of private-sector real estate developers as key partners for the maintenance and operations of high-quality parks, but the development industry can produce valuable benefits. For example, developers may be able to act more quickly and flexibly than parks departments, to experiment on innovative park programs, and to achieve cost savings – for example, by purchasing park equipment or hiring repair crews on an as-needed basis.

For pocket parks, volunteers as well as community groups and residents also play an essential role: gaining community interest, support, and participation in the planning and maintenance process is fundamental. Active investment facilitated by community groups can foster a sense of ownership and create a strong incentive for them to protect and preserve their park.

The Hong Kong Harbourfront Commission, which is pursuing harbourfront enhancement initiatives funded by HK$6.5 billion in dedicated funding, provides an example of cross-sector collaboration focused on open space. The commission is advancing opportunities to leverage the expertise of professional industries, non-profit organizations, the local community, and the private sector on the planning,

design, development, and management and operations of harbourfront areas. Commission members include business organizations, professional bodies, charities, and government representatives.

Successful partnerships can yield benefits for all, but they must be carefully established, nurtured, and maintained to achieve their true potential. Each partner should have specific, well-defined roles. Roles and expectations should be clarified in formal agreements and driven by the actor that is best positioned to execute a piece of the project successfully, equitably, and efficiently.

Selected Potential Cross-Sector Partner Roles Related to Park Operations and Maintenance

Partner	Roles
Public sector	• Performing regular maintenance • Organizing park events/activation activities • Incorporating park operations and maintenance into established frameworks with experienced workforce and dedicated park budgets • Making ongoing capital investments • Coordinating overall park funding • Facilitating community engagement • Overseeing partnerships • Managing ground leases and enforcing park access and operations agreements if a park is publicly owned and privately managed • Ensuring parks are equitably maintained across a city or region
Private sector	• Contributing funding for parks/park operators • Operating parks alongside real estate development projects • Sponsoring park events and programs
Non-profit	• Advocating for park funding/operations support • Working with partners to ensure that parks reflect community needs • Organizing/contributing to park operations and maintenance efforts
Philanthropic organisations	• Contributing funding for park operations and maintenance • Organising park-related cross-sector collaboration • Advancing ongoing health, resilience, and social equity priorities

Sources: Urban Land Institute, *Successful Partnerships for Parks*; Trust for Public Land, *Pocket Park Toolkit*.

Five Steps to Creating an Operations and Maintenance Strategy for Pocket Parks

Adapted from Trust for Public Land, Pocket Park Toolkit

1 Evaluate park design: Explore the elements in the park such as landscaping, play equipment, trash cans, lawn area, benches, paving, etc. Make a list of all these elements; include details like size and quantity.

2 Define operations and maintenance standards: Once a list of park elements is created, define the maintenance goal for each. For example, the goal for a lawn may be that it is trimmed and green with no yellow spots or visible dirt patches. Assign tasks required to meet the maintenance goal for each element. For example, turf will need to be watered, mowed, fertilized, and reseeded. These are the operations and maintenance standards, the maintenance tasks required for each element to ensure the park remains safe, functional, and a beloved resource for the community.

3 Create an operations and maintenance schedule: Review the list of operations and maintenance standards and make estimates about how often tasks will need to be performed to meet the maintenance goals. Organize these tasks by frequency: daily, weekly, monthly, or annually depending on the task. Park gates need to be opened and closed daily whereas tree health should be checked annually. The frequency of maintenance tasks for each element may change seasonally. Watering requirements for lawns generally increase during hotter, summer months. Project a year of tasks based on the estimated frequency and anticipated seasonal needs.

4 Regularly examine site conditions: Because weather and community use will change the condition of the park throughout the year, creating and maintaining a system to regularly examine and track site conditions will help determine how the operations and maintenance budget and requirements fluctuate seasonally. Monitoring these changes does not necessarily require high-tech tools or software. Data collected through observation by staff and park users can help inform operations and maintenance standards and schedules. This is especially true for a newly developed park. Documenting staff time, materials required, and frequency of each maintenance activity throughout the first year (and biannually or annually thereafter) will help estimate future operations and maintenance requirements and allow for better management of resources.

5 Evaluate operations and maintenance standards and schedule: After the first six months, or at the end of every year thereafter, take time to evaluate how the existing operations and maintenance standards support the park. At this point, a thorough review of the park's overall condition will help calibrate and update the operations and maintenance standards based on any maintenance deficiencies noted at the park. The operations and maintenance standards themselves should also be evaluated for any inefficiencies. It may not be worth replanting an area where plants are consistently trampled – adding mulch and allowing the area to become a pathway might be more sensible and a better use of resources. These yearly evaluations are a great opportunity to further engage the community. The community can be involved in the park evaluation or an annual clean-up or mulching day. Information gathered from surveys collected during step two can be summarized into a handout or infographic and presented back to community. Public review of this data supports compromise and community collaboration over shared park goals.

Funding Strategies

Although many parks and open spaces are developed and operated primarily with public funds, collaborative funding approaches are increasingly necessary in locations around the world. In Hong Kong, the capacity of the LCSD – one of the main governmental agencies that provides green space – is limited by funding and, as noted previously, the Hong Kong Planning Standards and Guidelines require that both public housing estates and large private residential developments provide at least one square metre of local open space per person, and new sustainable building guidelines encourage additional open space and greening.

An example of how cross-sector collaboration can secure funding for open space in Hong Kong is a scheme launched in 2019 by the Hong Kong Development Bureau allowing non-profit organizations to advance "basic restoration works" on vacant government sites to create beneficial projects for surrounding communities.

The funding scheme provides successful applicants with subsidies to complete projects, including slope upgrading, erection of temporary structures, and provision of drainage and pedestrian/vehicular access. The financial subsidy for each approved project is capped at HK$60 million and the Finance Committee of the Legislative Council created a non-recurrent commitment of HK$1 billion for the government to implement the scheme.

The funding scheme supplements the existing mechanism for handling applications for use of vacant government sites. A list of vacant government sites available for short-term tenancy for community, institutional, or non-profit-making purposes is available on the LandsD website.

Source: New World Development Company Limited

Cross-Sector Open-Space Funding Models

When combined with efforts to ensure that investments in parks are equitably distributed, cross-sector funding partnerships centred on park development and operation can create significant benefits for all parties and – most important – for the communities the parks serve.

The Commission for Architecture and the Built Environment presents eight models for funding urban green space, detailed in the chart. These approaches range from full public funding to cross-sector partnerships with private, non-profit, and philanthropic organisations.

The applicability and desirability of these models differ depending on location, planning frameworks, governance, stage in the life of the park, and other factors:

Models for Funding Urban Green Space

Funding model	Description	Strengths	Weaknesses
Traditional local agency funding	Direct funding for agencies responsible for parks provided by local governments	• Relatively stable source of funding on an annual basis • Strategic thinking can enable pooling of resources across public-sector agencies and other partners	• Specifics of annual funding arrangements can result in financial uncertainty and an inability to think long term • Public funds may not be dedicated to urban green spaces or may be limited
Multi-agency public-sector funding	Range of government agencies fund parks	• Pooling of resources among different bodies can support mutual goals, leading to efficiency savings and better value for money • Encourages the formation of partnerships and can build community capacity	• Many initiatives that encourage collaboration are one-off and short term • There may be competition for resources from other areas, for example police and health services
Taxation initiatives	In many countries, levies on property or tax credits can fund parks	• Dedicated local taxation can secure reliable and significant financial resources • Good-quality urban green spaces can increase property values and create tax revenue when properties are bought and sold	• Local governments may have limited autonomy and freedom to impose additional local taxes (as in Hong Kong) • An initial financial outlay is involved, and returns may take time to be realized
Planning and development opportunities	Planning agreements can provide funding for parks in and around new developments	• Can provide steady funding, which is secured at the outset of projects • Establishes mutual public and private goals when property developers contribute to developing and maintaining publicly accessible green space that can in turn help increase the value of their assets and investments	• Funding is susceptible to competition from other types of infrastructure such as public transport, community buildings, and waste management • Applies only to new development
Bonds and commercial finance	In some countries, local governments can receive loan funding from bonds to fund parks	• Bodies created to access commercial finance are free from the financial restrictions that local governmental agencies usually face • Can provide an initial and significant source of capital finance to fund urban green space projects	• Typically used only for infrastructure projects with predictable revenue • Green spaces need to generate enough financial return to make funding arrangement economically viable • Local governmental agencies may not currently be permitted to issue voter-approved bonds
Income-generating opportunities	Revenue-generating activities, such as sponsorships, event fees, and concessions	• Generates extra funds, spreads risk, and increases use of urban green space • If ownership of land is retained by the local governmental agency, provides a long-term investment • Can encourage the involvement of local businesses and stimulate the local economy	• Difficulties in dedicating income for parks within overall pool of public funds • Risk of over-commercialization and environmental damage unless managed carefully
Endowments	Long-term funding from interest gained on investments	• Steady and secure income that can be supplemented with funding generated by other models • Financial risks can be spread across a range of investments • Investment in a property portfolio can help increase the value of the property and subsequently the value of the endowment	• The initial endowment needs to be big enough to yield the necessary income; securing such a large asset will be beyond most organizations • Managing the investment requires considerable financial expertise, which may not be available within a local government
Voluntary and community-sector involvement	Non-profit and community organizations can contribute time, labour, and park funds	• Charitable status of non-profit organizations brings tax-relief benefits and can attract investment from sources that local governments cannot • Partnership agreements between local government agencies and non-profit organizations can increase opportunities from other sources of funds	• Fundraising programs are usually more suitable for capital projects rather than longer-term revenue funding, and many non-profit entities struggle to survive financially due to the precarious nature of the income they rely on • Roles and responsibilities between local governments and the voluntary and community sectors are not always clear

Source: Adapted from Commission for Architecture and the Built Environment, *Paying for Parks*.

Funding for Pocket Parks

According to the National Recreation and Park Association, at the local level, public/private ventures, individual contributions, and philanthropic support are often solicited to underwrite start-up and equipment costs for pocket parks. While some pocket parks are financed almost entirely with private funds, many are financed by a combination of various sources. Organizations engaged in funding specific components of pocket parks may contribute towards park enhancement including by funding large lawn areas, landscaping, paths, neighbourhood gathering areas, and interactive features for children's play.

To serve community needs, each pocket park may require a unique funding structure. The Trust for Public Land provides a sample pocket park capital budget planning sheet in its Pocket Park Toolkit, which is included in the resource list.

Sample Capital Investment Budget

	Item Description	Quantity	Unit	Unit Cost	Subtotal	Total
1.0	**Design, Permits and Testing**					
1.1	Construction documents (10% of construction costs)	1	LOT	$ -	$ -	$ -
1.2	Geotechnical/MT&I	1	LOT	$ -	$ -	$ -
1.3	Agornomic testing	1	LOT	$ -	$ -	$ -
1.4	Site survey	1	LOT	$ -	$ -	$ -
1.5	Plan check	1	LOT	$ -	$ -	$ -
1.6	Permits	1	LOT	$ -	$ -	$ -
1.7	Constuction Management	1	LOT	$ -	$ -	$ -
						$ -
2.0	**Demolition and Removal**					
2.1	Clearing and grubbing		SF	$ -	$ -	$ -
2.2	Remove and relocate irrigation heads		SF	$ -	$ -	$ -
2.3	Tree Removal		EA	$ -	$ -	$ -
2.4	Saw Cut - Exist. Curb		LF	$ -	$ -	$ -
2.5	Concrete		SF	$ -	$ -	$ -
2.6	Asphalt Concrete		SF	$ -	$ -	$ -
2.7	Fencing		LF	$ -	$ -	$ -
2.8	Tree Boxing and Relocation		EA	$ -	$ -	$ -
						$ -
3.0	**Earthwork and Grading**					
3.1	Cut and Fill		CY	$ -	$ -	$ -
3.2	Rough Grading		SF	$ -	$ -	$ -
3.3	Fine Grading		SF	$ -	$ -	$ -
3.4	Soil Import		CY	$ -	$ -	$ -
3.5	Soil Export		CY	$ -	$ -	$ -
						$ -
4.0	**Sidewalk and Parking Lot Paving**					
4.1	Asphalt Concrete Paving		SF	$ -	$ -	$ -
4.2	Asphalt Concrete Paving Drive Approach		EA	$ -	$ -	$ -
4.3	Concrete Curb		LF	$ -	$ -	$ -
4.4	Concrete Curb & Gutter		LF	$ -	$ -	$ -
4.5	Parking Striping		SF	$ -	$ -	$ -
4.6	ADA signs		EA	$ -	$ -	$ -
						$ -
5.0	**Hardscape**					
5.1	Integral Colored Concrete Paving		SF	$ -	$ -	$ -
5.2	4" Concrete Paving		SF	$ -	$ -	$ -
5.3	6" Concrete Paving		SF	$ -	$ -	$ -
5.4	Decorative Paving		SF	$ -	$ -	$ -
5.5	ADA Ramp		SF	$ -	$ -	$ -
5.6	Concrete Step		SF	$ -	$ -	$ -
5.7	Concrete Swale		LF	$ -	$ -	$ -
5.8	6" Mow Strip		LF	$ -	$ -	$ -
5.9	Grass Pave		SF	$ -	$ -	$ -
5.10	6" Curb		LF	$ -	$ -	$ -
5.11	Sand Set Pavers		SF	$ -	$ -	$ -
5.12	Unstabilized Decomposed Granite		SF	$ -	$ -	$ -
5.13	Stabilized Decomposed Granite		SF	$ -	$ -	$ -
						$ -
6.0	**Formed Concrete Work**					
6.1	Bench Seating		LF	$ -	$ -	$ -
6.2	Precision Block Wall		LF	$ -	$ -	$ -
6.3	Slump Block Wall		LF	$ -	$ -	$ -
6.4	Split Face Block Wall		LF	$ -	$ -	$ -
6.5	Cast in Place Concrete Wall		LF	$ -	$ -	$ -
6.6	Chain Link Fence		LF	$ -	$ -	$ -
6.7	Chain Link Gate		EA	$ -	$ -	$ -
6.8	Chain Link Double Gate		EA	$ -	$ -	$ -
6.9	Tubular Steel Fence		LF	$ -	$ -	$ -
6.10	Tubular Steel Gate		EA	$ -	$ -	$ -
6.11	Engraving		SF	$ -	$ -	$ -
						$ -
7.0	**Site Amenities**					
7.1	Picnic Table		EA	$ -	$ -	$ -
7.2	Bench		EA	$ -	$ -	$ -
7.3	BBQ		EA	$ -	$ -	$ -
7.4	Drinking Fountain		EA	$ -	$ -	$ -
7.5	Trash Recepacles		EA	$ -	$ -	$ -
7.6	Exercise Equipment		EA	$ -	$ -	$ -
7.7	Playground Equipment		EA	$ -	$ -	$ -
7.8	Playground Surfacing (PIP, Engineered Wood Mulch)		EA	$ -	$ -	$ -
7.9	Tree Grate		EA	$ -	$ -	$ -
7.10	Educational Signage		EA	$ -	$ -	$ -
7.11	Park Monument Signage		EA	$ -	$ -	$ -
						$ -
8.0	**Buildings and Structures**					
8.1	Restroom		SF	$ -	$ -	$ -
8.2	Restroom Prefab Building		LS	$ -	$ -	$ -
8.3	Shade Structure		SF	$ -	$ -	$ -
8.4	Gazebo		SF	$ -	$ -	$ -
8.5	Shade Sail		SF	$ -	$ -	$ -
						$ -
9.0	**Electrical**					
9.1	Up Lights -Solar Powered		EA	$ -	$ -	$ -
9.2	Bollards-Solar Powered		EA	$ -	$ -	$ -
9.3	Service for restroom and irrigation		EA	$ -	$ -	$ -
9.4	Solar Post and Power Assembly Panel		EA	$ -	$ -	$ -
9.5	Lighting Control		EA	$ -	$ -	$ -
						$ -
10.0	**Utilities**					
10.1	Domestic Water Service		LF	$ -	$ -	$ -
10.2	Domestic Irrigation Water Service		LF	$ -	$ -	$ -
10.3	Reclaimed Water Service		LF	$ -	$ -	$ -
10.4	Sewer Line		LF	$ -	$ -	$ -
10.5	Gas Line		LF	$ -	$ -	$ -
10.6	Electric Service		LF	$ -	$ -	$ -
10.7	Phone Service		LF	$ -	$ -	$ -
10.8	Cable Service		LF	$ -	$ -	$ -
						$ -
11.0	**Landscape**					
11.1	Planting		SF	$ -	$ -	$ -
11.2	Mulch		CY	$ -	$ -	$ -
11.3	Soil Preparation		CY	$ -	$ -	$ -
11.4	Sod		SF	$ -	$ -	$ -
11.5	Turf Sod		SF	$ -	$ -	$ -
11.6	Turf Hydroseed		SF	$ -	$ -	$ -
11.7	Groundcover		SF	$ -	$ -	$ -
11.8	1 gallon Shrub		EA	$ -	$ -	$ -
11.9	5 gallon Shrub		EA	$ -	$ -	$ -
11.10	15 gallon Shrub		EA	$ -	$ -	$ -
11.11	15 gallon Tree		EA	$ -	$ -	$ -
11.12	24" box Tree		EA	$ -	$ -	$ -
11.13	30" box Tree		EA	$ -	$ -	$ -
11.14	36" box Tree		EA	$ -	$ -	$ -
11.15	48" box Tree		EA	$ -	$ -	$ -
11.16	60" box Tree		EA	$ -	$ -	$ -
11.17	72" box Tree		EA	$ -	$ -	$ -
11.18	Irrigation System		SF	$ -	$ -	$ -
11.19	Irrigation Controller		EA	$ -	$ -	$ -
11.20	Irrigation Booster Pump		EA	$ -	$ -	$ -
11.21	90 Day Maintenance		EA	$ -	$ -	$ -
						$ -

Construction Cost	$ -
General Conditions (8%)	$ -
Contractor Bonds, Insurance, Overhead & Profit (10.2%)	$ -
SUBTOTAL CONSTRUCTION COST	**$ -**

Design Contingency Allowance (3%)	$ -
Escalation (3% Annually)	$ -
Construction Contingency (15%)	$ -
TOTAL CONSTRUCTION COST	**$ -**

Source: New World Development Company Limited

Equitable Funding

Cities around the world are increasingly working to address the inequitable provision of parks and green spaces, including by setting aside funds for park development and operations in underserved areas, adding equity-focused criteria to how funds are allocated, and funding the construction of new small parks in local neighbourhoods instead of solely focusing on large, centralized parks. The Singapore Government's Lee Kuan Yew World City Prize outlines recent equitable park funding efforts:

- **Melbourne, Australia:** In May 2020, Melbourne created an A$154 million (about HK$888 million) Suburban Parks Programme to build pocket parks in densely populated suburbs that lack sufficient green spaces.
- **Shanghai, China:** As of September 2020, Shanghai was on track to create more than 200 pocket parks citywide by the end of the year.
- **London, United Kingdom:** London's Grow Back Greener Fund was created in 2020 to support the construction of green spaces in underserved areas. The fund prioritizes park projects "led by or intended to benefit lower-income and ethnic minority Londoners."
- **Vancouver, Canada:** Vancouver has updated how it assigns funding for parks to ensure more equitable access to green spaces. The city has a goal of having all residents within a five-minute walk of a green space and it prioritizes park funding in areas with less than 0.55 hectares of park space per 1,000 residents, with less than 10 percent of land covered in trees and greenery, and with a high proportion of low-income residents.

Financial Planning

Financial planning is essential for successful park development, maintenance, and operations. Each park has different funding needs based on park size, location, ownership, stakeholder priorities, and other factors. It is essential to develop a realistic budget during the planning process so long-term park operators can provide the greatest benefit for park users. Budgeting must also consider the financial and staffing capacity of long-term operators so that parks can remain clean and safe, with all park amenities in a state of good repair.

The Trust for Public Land outlines the general considerations of any park project. Two separate budgets are needed for any park – the capital investment budget and the operating budget.

The two budgets are closely connected, because long-term operating costs are strongly influenced by the original park design. The capital investment budget contains:

- **Hard costs:** all expenses directly related to the physical construction of the park, including labour and materials;
- **Soft costs:** all expenses and fees indirectly related to the physical construction of the park, including technical and administrative expenses (i.e., surveying, architectural and landscape design, project management, and permitting fees); and
- **Contingencies:** savings to account for any unforeseen costs.

The operating budget includes costs required to operate and maintain the park after it is open to the public. Specific costs include utility fees, staff wages, and other costs to ensure the park is kept open, clean, and functional.

Learn More

This section provides illustrative case studies and further resources on creating and activating small parks.

Case Studies

In this section, short case studies from around the world demonstrate how different cities have successfully expanded their usable green space by creating, renovating, and/or activating parks and other public spaces. Each case study describes the funding, creation, activation, and/or maintenance strategies, with a focus on the elements most relevant to the context of Hong Kong.

Source: Nic Lehoux

Kic Park, Shanghai, China
Source: Denghaoyu, flickr

Kic Park, Shanghai, China

- **Park size:** 1,100 square metres
- **Neighbourhood type:** City Neighbourhood
- **Context:** Interstitial space
- **Year completed:** 2009
- **Ownership:** Shui On Development Limited
- **Key partners:**
  o Private – 3GATTI Architects
  o Public – N/A
- **Green/resilient features:** Grass, trees, and planting beds

Key Points

Relevance to Hong Kong: Kic Park uses an interstitial space surrounded by development – a highly comparable park context to Hong Kong – to create a pocket park with creative seating, greenery, and play elements, incorporating a thoughtfully designed boardwalk to elevate some of these park features, which are also popular in Hong Kong's sitting-out areas.

- Innovative design can transform typical park features into a unique experience, making the most of small spaces and helping to activate the park.

Case Study: Kic Park used several activation strategies to transform a small, interstitial space in Shanghai into a pocket park that invites people to gather, play, and engage with one another. Surrounded by buildings and streets, this space was otherwise unlikely to be developed and could instead serve as a respite for people exploring the dense, compact neighbourhood.

Interdisciplinary design studio 3GATTI Architects created the 1,100-square-metre park for their client, Shui On Development Ltd. Kic Park is located at the entrance of KIC Villages, a part of Shui On's Knowledge and Innovation Community (KIC) development in the Yangpu District.

A boardwalk made out of planked wood weaves through the park and rises to different heights along its path. The slopes throughout the boardwalk can be used for seating, skateboarding, or as a base for signage. This multipurpose feature draws people into the park and encourages them to interact with the boardwalk in a playful, curious way. Notably, the park allows skateboarding, biking, and other activities that enable people to make the most of this design. For visitors who would prefer more traditional seating, the park also provides tables and chairs.

A variety of materials, including wood, river rock, and grass and trees, are placed throughout the park. Like the boardwalk itself, these elements exist at different heights to help the small space feel more expansive. With greenery embedded in the waves of the boardwalk, many of the plantings are visible only from certain angles, resulting in a sense of discovery as visitors move throughout the park.

The design of the boardwalk, the use of different materials, and the hidden natural elements all encourage movement throughout the park, create a playful environment, and infuse the park with a unique identity. As people interact with the space, they can also interact with one another, whether gathering on the boardwalk benches or traditional tables, biking over the boardwalk, or observing how others interpret and use the space.

Similar pocket parks exist in Hong Kong, such as the 100-square-metre Graham Street sitting-out area. Like Kic Park, it is surrounded by development – including shops and mid-rise residential buildings – in a dense part of the city (Hong Kong's central district). The park was built on the former site of a tong lau and fills the rectangular space with a series of terraces, planters, freestanding benches, a pathway, and a row of orchid trees to provide shade. For existing parks like these, Kic Park demonstrates how creative renovations can elevate basic park elements, such as a pathway reimagined as a rolling boardwalk, into an artistic, engaging, and playful experience without the need for additional space.

Sources

- Land8
- 3Gatti
- Interstitial Hong Kong
- Shui On Land

Beyond 72 Hours, Seoul, South Korea
Source: Seong-heon Lee

Beyond 72 Hours, Seoul, South Korea

- **Park size:** 65 square metres
- **Neighbourhood type:** Commercial
- **Context:** Small triangular plaza at an intersection
- **Year completed:** 2018
- **Sources of funding:** Seoul Metropolitan Government
- **Key partners:** Students, landscape designers, borough official, merchant association
- **Green/resilient features:** Planting area

Key Points

Relevance to Hong Kong: This quick activation of a small site shows how simple but impactful changes to the public realm can make spaces more welcoming, attractive, and functional. These types of changes are particularly relevant to parks in Hong Kong, which have similar sitting-out areas, and have lessons for small-scale demonstration sites on a short timeline, such as those in the Bank of America project.

- Space transformations do not have to be time-consuming or complicated.
- Basic maintenance is necessary to create inviting spaces.
- Simple features can serve multiple functions, such as the shade structure that also acts as an artistic and colourful part of the design.

Case Study: The Seoul Metropolitan Government's 72 Hour Urban Action competition gives participants three days and nights to transform underused spaces in the city. One 2018 project, titled Beyond 72 Hours, focused on a 65-square-metre triangular plaza surrounded by a road, a pedestrian way, and a pub terrace.

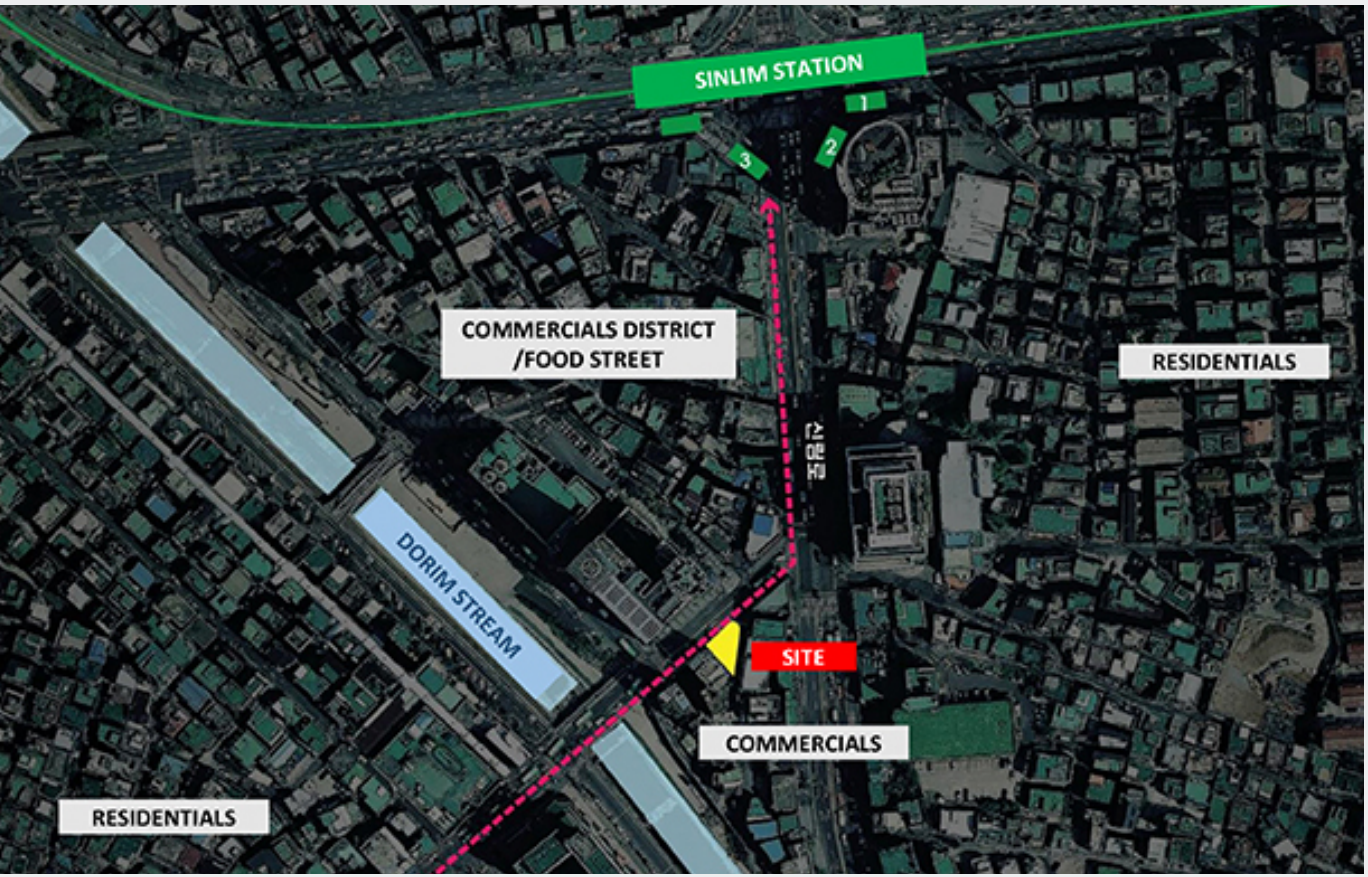
Despite how busy the area is and the high potential of the site, the plaza was poorly maintained, had little green space, and incorporated few design features. The project team – composed of eight students, three landscape design professionals, and a borough official – used simple but effective interventions to maximize the value of the neglected space, aiming to demonstrate the lasting impact that even small changes can have.

Throughout the design process, the project team conducted site visits and gathered ideas and feedback from the merchant association. Their design combined upgrading aspects of the site with new features, taking into account the limited construction time.

To upgrade existing features, the team cleaned and repainted a lighting frame, and they replaced a section of bricks with new ones that complemented the original groundwork.

Remedying the lack of green space, the team added a garden marked by boundary stones, planted additional ground cover around an existing tree, and added plants to an existing planter and designed a bench beneath it. These new green features not only made the space more inviting but also engaged people in the surrounding area. For example, people sitting at the pub terrace could now see the planters rather than a neglected space, and people passing by on the pedestrian walkway could get intriguing glimpses of the garden through a porous wall.

The team designed a standing table, adding a yellow steel plate on one of the sides to match the nearby sign for the pub, and a yellow shade structure. These elements are functional for the park users, and the colour connects the space to its surrounding environment. Moreover, the shade scatters light throughout the space, which changes the look of the park regularly and adds visual interest for visitors.



Source: Seong-heon Lee

Finally, the team ensured that basic amenities were available. Because the space was designed for people to stop and rest, they primarily added new benches for sitting.

The combination of necessary, functional features and appealing design has led people to use the park in expected and unexpected ways, such as a child sitting on a porous garden wall that had been designed as an art feature. As people continue to enjoy this resting place, it is clear that only three days of construction, basic maintenance, and simple changes have successfully reinvigorated the plaza. The team hopes this will inspire change in similarly underused sites in nearby commercial areas while demonstrating the value of even the smallest public spaces.

Sources

- 2019 ASLA Student Awards

Omoken Park Omoken Park, Kumamoto, Japan
Source: Yashiro Photo Office

Omoken Park, Kumamoto, Japan

- **Park size:** 67 square metres
- **Neighbourhood type:** Commercial
- **Context:** Rooftop
- **Year completed:** 2019
- **Key partners:** Yabashi Architects & Associates
- **Green/resilient features:** Built with sustainable materials

Key Points

Relevance to Hong Kong: This rooftop pocket park shows an innovative option for providing high-quality public space in a compact, interstitial setting. This space – the footprint of a destroyed building – is similar to parcels of land in Hong Kong where shop houses used to exist.

- The private sector can contribute to public space in low-cost, creative ways that attract people to their business.
- A thoughtful minimalist design can provide the basic components of a high-quality public space.

Case Study: Omoken Park is a 67-square-metre pocket park located on the rooftop of a café. Set back from a row of shops, the café was built in the space of a building that had been destroyed in a 2016 earthquake. Designed by Yabashi Architects & Associates to be a "public space of private space," the site is publicly accessible and free to use. The earthquake inspired this focus on creating community spaces, reflecting the sense of community that people had after the disaster. In fact, the park and café were designed to be low cost and not prioritize financial returns, instead focus on creating a high-quality, multipurpose public space.

Stairs lead up to the park, which has four terraces that naturally create seating and gathering spaces. As visitors move up the tiers, they transition from a vibrant street to a calmer space overlooking a courtyard in the back. With trees surrounding the site, the park serves as a green space to gather, rest, and find a respite from the busy shopping street.

The minimalist design of the building and rooftop was constructed to reduce its environmental impact, including using cross-laminated timber (a sustainable building material), emphasizing natural light, and providing open air circulation.

A community-centred park that contributes to the availability of public space, Omoken Park also brings people to the café in the building below and provides a peaceful space for customers, demonstrating how private and public spaces can complement each other.

Similarly, Hutong Micropark in Beijing was a 50-square-metre pilot project on a portion of Yangmeizhu Lane. After obtaining existing plants and the temporary use of parking spots in 2014, the park was filled with tables, chairs, flowers, shades, green pavement, and decorations. Notably, a snack kiosk was allowed to operate at the park, which gained a base of customers from the park while providing a service to park visitors. Like Omoken Park, Hutong Micropark provided a community-focused park developed from a small amount of available land, while connecting private businesses with public spaces in ways that benefitted both the businesses and the community.

Sources

- Dezeen
- ArchDaily
- World Architecture Community
- The Hidden Wealth of Cities: Creating, Financing, and Managing Public Spaces (World Bank)

Camley Street Natural Park, London, United Kingdom
Source: Karen Bryan, flickr

Camley Street Natural Park, London, United Kingdom

- **Park size:** 0.8 hectares
- **Neighbourhood type:** Train station/city neighbourhood
- **Context:** Urban nature reserve near London's King's Cross and St. Pancras International train stations
- **Year completed:** 1985; renovation and habitat enhancement expected to be completed in 2021
- **Cost:** Initially, £300,000 (HK$3,215,964); costs for park renovation expected to be completed in 2021 include £1,098,000 (HK$117,81,008) from the Heritage Lottery Fund and £400,000 (HK$4,291,806) in funds from the adjacent King's Cross Central development
- **Sources of funding:** Public funds, private and philanthropic donations, funding from adjacent real estate development
- **Ownership:** London Borough of Camden
- **Key partners:**
  - o Non-profit – London Wildlife Trust
  - o Public – London Borough of Camden, Heritage Lottery Fund
  - o Private – Thames Water, King's Cross Central Limited Partnership
  - o Philanthropic – Stavros Niarchos Foundation, Garfield Weston Foundation, Taurus Foundation
- **Green/resilient features:** Plant and wildlife habitat creation/restoration, pollution mitigation

Key Points

Relevance to Hong Kong: This case study is relevant to Hong Kong because it is a successful nature preserve surrounded by significant development in a central urban area.

- The park was created after a successful campaign by local residents and the London Wildlife Trust convinced leaders of the value of a nature reserve on the formerly polluted site.
- A park renovation and restoration, expected to be completed in 2021, will include a new visitors and learning centre that will accommodate an estimated 40,000 annual visitors.
- The park provides woodland, grassland, and wetland habitats for birds, butterflies, amphibians, and various plants in a busy area of central London.

Case Study: Camley Street Natural Park is an urban nature reserve roughly the size of a football/soccer pitch between London's King's Cross and St. Pancras International train stations. The park is surrounded by major new development – including the 27-hectare King's Cross Central development. It provides woodland, grassland, and wetland habitats for birds, butterflies, amphibians, and various plants.

The park site was once a coal drop – a section of railway designed to allow coal to drop to the ground beneath. The coal drop was demolished in the 1960s, and the polluted site was overtaken by nature. The Greater London Council bought the site in 1981 with plans to turn it into a parking lot.

Instead, nearby residents and the London Wildlife Trust – a local nature conservation charity for Greater London that now manages over 40 nature reserves – ran a successful campaign to save the site from development and create the park. Local residents were involved in every aspect of the project's planning and development, and a capital budget of roughly £300,000 (HK$3.2 million) supported the initial creation of the park in 1985. The London Wildlife Trust operates the park and raises funds from members of the public, trusts, and companies.

With the number of expected visitors increasing to 40,000 annually – partially because of nearby development – the park temporarily closed in 2017 for reconstruction and rehabilitation. This work is expected to be completed in 2021 and includes desilting ponds and enhancing the wildflower meadow and wetland and reed-bed areas. Specifically, reed beds have been added at the water's edge of the adjacent Regent's Canal to incorporate habitats for birds and fish. The reed beds also provide ecosystem functions, such as the absorption of excess nutrients from the water, helping mitigate canal pollution.

The park renovation also includes construction of a new visitors and learning centre that will feature classroom spaces, studios, and a small café. To create the updated visitors and learning centre, the London Wildlife Trust was awarded £1,098,000 (HK$117,81,008) from the Heritage Lottery Fund in 2017, with further support from Stavros Niarchos Foundation, Thames Water, the Garfield Weston Foundation, and the Taurus Foundation. The renovation project has also been supported by a contribution of £400,000 (HK$4,291,806) from the adjacent King's Cross Central mixed-use development, which is managed by the King's Cross Central Limited Partnership.

Sources

- London Wildlife Trust
- London Wildlife Trust: London Wildlife Trust awarded £1 million to transform the wild heart of King's Cross
- The *Guardian*
- *Camden New Journal*
- The Nature of Cities

The Bentway, Toronto, Ontario, Canada
Source: Denise Militzer

The Bentway, Toronto, Ontario, Canada

- **Park size:** 1.01 hectares
- **Neighbourhood type:** City neighbourhood
- **Context:** Public space underneath 1.75 kilometres of elevated expressway
- **Year completed:** Phase 1 was completed in 2018; future phases will extend the Bentway to the east
- **Cost:** Can$23.8 million (HK$146,917,243)
- **Sources of funding:** Private donors and public funds
- **Ownership:** City of Toronto, the Bentway Conservancy (maintenance and operations)
- **Key partners:**
  - Private – PUBLIC WORK, Greenberg Consultants Inc. (designers); private donors
  - Public – City of Toronto, Waterfront Toronto (developer)
  - Non-profit – The Bentway Conservancy (park operations), other non-profit partners
- **Green/resilient features:** Soil remediation, air quality modeling to confirm the safety of the area beneath the expressway, native grasses watered by storm run-off from the roadway above through sustainable drainage system

Key Points

Relevance to Hong Kong: This case study is relevant to Hong Kong because it is a park with green/resilient features created in formerly underused urban space underneath an expressway; there is opportunity to green spaces like this in Hong Kong.

- The Bentway serves to reconnect a mainly residential area of Toronto to the Lake Ontario waterfront.
- The linear park makes creative use of space beneath a busy roadway to create a place and support urban resilience.

Case Study: The Bentway is a unique public space that reimagines 1.75 kilometres of underused land beneath Toronto's elevated highway, the Gardiner Expressway, as a "new creative place, connective corridor, and backyard park for all of Toronto." The project celebrated the opening of Phase 1 in 2018, and future phases will extend the park further to the east. Initial planning for the park incorporated city-wide community input and feedback collected over the course of 119 days.

The Gardiner Expressway has long been a point of division in the city, cutting off a mainly residential area from the traditionally industrial waterfront. The Bentway serves to reconnect Toronto to its waterfront by knitting together seven distinct urban neighbourhoods that are home to nearly 100,000 people living within a 10-minute walk of the park.

To spur the park's development in 2015, local philanthropists Judy and Wil Matthews committed to making a Can$25 million philanthropic gift to the city of Toronto. The project then moved ahead in collaboration with renowned urban designer Ken Greenberg and cooperation from Mayor John Tory and multiple city departments. In 2016, the Toronto City Council approved the creation of an independent, non-profit organization to operate the park space called the Bentway Conservancy.

Phase 1 includes a multi-use path connecting to surrounding communities, amphitheatres, a "splash pad" water feature, site lighting, park furniture, free site-wide wi-fi, and five stories of height from the ground up to the deck of the Gardiner Expressway.

The park acts as a gathering space and pedestrian corridor through Toronto's western downtown and improves north–south connections under the expressway, linking up to an existing network of sidewalks, bike lanes, and multi-use trails.

Sources

- Urban Land Institute
- Reactivate Brownfields Research Lab at Ryerson University
- Archello
- Waterfront Toronto

Source: Denise Militzer

McGilvra Place Park, Seattle, United States
Source: Bullitt Foundation

McGilvra Place Park, Seattle, United States

- **Park size:** 0.5 acres (0.2 ha)
- **Neighbourhood type:** City neighbourhood
- **Context:** Former traffic median
- **Year completed:** 2013
- **Cost:** US$750,000 (HK$5,820,315)
- **Sources of funding:** Public funding and private donors
- **Ownership:** City of Seattle
- **Key partners:**
  - o Private – Bullitt Foundation (developer, nearby building owner), private donors, Point32 (landscape design)
  - o Public – Seattle government
- **Green/resilient features:** Recycled and porous concrete, reclaimed wood benches, drought-tolerant native landscaping

Key Points

Relevance to Hong Kong: This case study is relevant to Hong Kong because it is a mini/pocket park with green/resilient features created in formerly underused urban space.

- The city of Seattle owns McGilvra Place Park, but the Bullitt Foundation – the developer and owner of the adjacent Center building – manages day-to-day maintenance.
- The park developer, the Bullitt Foundation, recognized that being located next to a high-quality public space improves property values.
- Transforming "leftover" street spaces into small parks can have a big impact.

Case Study: McGilvra Place Park in Seattle is proof that even small parks can have a big impact. Once a leftover 2,605-square-foot (242 m^2) triangular space created where two streets meet at the edge of the Central District neighbourhood, McGilvra Place Park is now a demonstration site for green features as a Living Building Challenge–certified project.

This is not surprising, given the location, adjacent to the Bullitt Center – commonly touted as the world's greenest commercial building. The centre's owner and operator, the Bullitt Foundation, recognized the importance and value of redeveloping this space concurrently with the office building and led the effort to certify the park, which includes features such as recycled and porous concrete, reclaimed wood benches, and drought-tolerant native landscaping.

Technically considered a traffic median and owned by the Seattle Department of Transportation, McGilvra Place was once an elevated lawn, walled off and hard to use, surrounded by mature London plane trees that were protected in the project. The underused median seemed ripe for transformation to the Bullitt Foundation, as the neighbourhood plan called for more publicly accessible open space. Located to the west of the Bullitt Center, McGilvra Place was also important as an undeveloped site that would protect the building's solar panels – located higher than the tops of the London plane trees – from future shading.

The city of Seattle was a key partner in funding the redevelopment. Half the estimated US$750,000 (HK$5,820,315) for redevelopment was raised from private donors while the Seattle Parks and Green Spaces Levy Opportunity Fund provided the other half. The city also agreed to convert a short block of 15th Avenue – in between the park and the Bullitt Center – into a "green street". The right-of-way exists for emergency vehicle use only, and the street closure expanded the usable public space by 20 percent while enhancing safety for pedestrians in and around the park. Although the city technically owns the park, the Bullitt Foundation

manages day-to-day maintenance such as trash pickup and graffiti and leaf removal; Seattle Parks and Recreation handles major maintenance.

The Bullitt Foundation and partners learned key lessons while planning and designing the project – most important, the alignment of project plans with neighbourhood goals. Said Brad Kahn with Groundwork Strategies, who serves as communications director for the Bullitt Center and as a board member for the Seattle Parks Foundation: "This wasn't just good for the neighbourhood, but it also helped the project. By working with surrounding neighbours and aligning our project with neighbourhood plans calling for more pocket parks, we were able to build support for the project. This helped us move through design review and permitting."

It is also in a developer's best interest to invest in nearby public spaces. "Research shows that locating near a degraded public space can drive property values down, but being located next to a quality public space, however you define that, absolutely improves property values," said Kahn. "As a developer, you have a stake in the quality of that space, even if the only thing you care about is the bottom line. For a civically minded developer like the Bullitt Foundation, the dollars you're putting in for the benefits you're getting back makes it a fairly straightforward decision."

Sources

- Urban Land Institute, *Pavement to Parks*

Balfour Street Park, Sydney, Australia
Source: Didiunsw

Balfour Street Park, Sydney, Australia

- **Park size:** 640 square metres
- **Neighbourhood type:** City neighbourhood
- **Context:** Street closure
- **Year completed:** 2011
- **Cost:** A$350,000 (HK$2,106,886)
- **Sources of funding:** Public (North Sydney Council)
- **Ownership:** North Sydney Council leases the site from the State Rail Authority
- **Key partners:**
  - Public – North Sydney Council, City of Sydney, State Rail Authority, neighbourhood volunteers and advocates
  - Private – Jane Irwin Landscape Architects, Design Landscapes for Frasers Property
- **Green/resilient features:** Use of native plants, brick swale that acts as a collection point for stormwater from the streets above the park

Key Points

Relevance to Hong Kong: This case study is relevant to Hong Kong because it is a mini/pocket park with green/resilient features created in formerly underused urban space.

- A small pocket park created through a partial street closure forms a pedestrian connection between neighbourhoods and a gateway to larger nearby park.
- Community members identified the need for a park and worked with government to gain control of the site and advance park development; volunteers assist with park maintenance.
- Brick swale helps drain area and serves to educate park visitors about green features.

Case Study: Balfour Street Park is a small neighbourhood pocket park in Sydney that opened in 2011 after one block of Balfour Street, a local thoroughfare, was closed. The park forms a pedestrian link between the neighbourhoods of Chippendale and Broadway and creates a transition between an adaptive use project called Central Park – a six-hectare mixed-use development focused on sustainability at the site of a former brewery that includes a 6,400-square-metre park called Chippendale Green – and nearby smaller-scale residential areas.

Local residents spearheaded the creation of the park through Streets Alive, a program administered by the North Sydney Council (a local government entity) that allows the community to "create and care for gardens on public land or land owned by State Government authorities." The owner of the park site, the State Rail Authority, allowed the Council to lease the Balfour Street site to allow public access and create the park. The Council supported the project with funds for construction and technical assistance from its Open Space and Environmental Services Division.

Designed by the city of Sydney and delivered by Frasers Property, the park includes a central area of grass for recreation, a brick drainage swale, and trees and native plants at park edges. Plants were specifically chosen to screen the nearby railway line and attract native birds. A park bench was installed for visitors to picnic and enjoy the views of Sydney. Bricks and other materials were used to reflect the nearby former

Source: Didiunsw

brewery buildings and the workers terraces and old factory buildings in the surrounding area.

The swale features protruding bricks to capture rubbish and slow water flow. Lighting along the swale provides a point of interest through the park during the day and at night. The swale provides drainage benefits for the area and serves as a "demonstration piece". Resident volunteers support routine park maintenance, including by weeding and pruning.

Sources

- Landezine
- ArchitectureAU
- North Sydney Council

Modular Parks in Seoul, South Korea
Seoul Metropolitan Government (SMG)

Modular Parks in Seoul, South Korea

In 2021, the Seoul Metropolitan Government (SMG) advanced plans to create eight new modular parks across the city using components that are flexible and easy to install, such as planters and benches. The modular parks help advance the city's goals of expanding green space, enhancing the city's landscape, and reducing particulate matter.

The parks will create shade over paved concrete spaces at locations including Gangnam Station, Seoul Forest Station, and Bangbae Café Street. These locations were chosen because of their current lack of green space and shade and their proximity to residential areas and transit stations. SMG first created modular parks in 2019 and before 2021 had installed 16 parks in various locations across Seoul.

The new modular parks will be created on underused paved sites, including empty lots and the sides of roads. Each park will include relaxation benches, portable water foundations, and multiple mobile planters that can be temporarily relocated using cranes and forklifts when space is needed for events. The planters can also be placed in different orientations depending on the site, creating unique spaces. In addition, one-person "social-distancing benches" will be used in response to COVID-19 and other infectious diseases.

SMG notes that installing modular parks allows the city to easily create green spaces on paved surfaces where it would otherwise be challenging to plant trees without significant work to create the necessary soil depth. The new parks will include taller trees that can create more shade than those used previously.

Sources

- Seoul Metropolitan Government
- Smart Cities World

Resources

The following resources provide additional guidance on park development in Hong Kong, creating and activating parks, and the role of parks in climate resilience.

Hong Kong Government

- *Public Open Space in Private Developments Design and Management Guidelines* (Hong Kong Development Bureau)
- *Hong Kong 2030+: Toward a Planning Vision and Strategy Transcending 2030* (Hong Kong Development Bureau and Planning Department)
- *Hong Kong Planning Standard and Guidelines*
  - Chapter 4: Recreation, Open Space & Greening
  - Chapter 11: Urban Design Guidelines

ULI Reports on Parks and Open Spaces

- *The Case for Open Space* outlines four compelling cases for developers to invest in open space, each supported by research and project briefs, as well as insights from developers, public officials, and others working at the intersection of open space and real estate development.
- *Successful Partnerships for Parks* explores case studies and examples of successful partnerships for equitable parks and distils lessons learned from these projects, to inform potential partnership arrangements.
- *The Pandemic and the Public Realm* features more than 30 innovative public space programs and projects since COVID-19 public health measures began in Spring 2020. The report showcases how temporary, flexible, equitable, and iterative projects can be more responsive to quickly changing needs while building support for future projects in the recovery.
- *10 Principles for Enhancing Equitable Access to Parks* distils and synthesizes key themes, lessons learned, and best practices from the recommendations of 14 Advisory Services panels and national study visits on parks and open spaces. By sharing lessons from cities' steps toward more equitable park access, this report helps leaders across sectors work toward healthier communities.
- *Pavement to Parks* presents stories from across the United States and the globe of cities and organizations that have worked to transform or enhance spaces formerly dedicated to cars into parks and open spaces that support recreation, community engagement, sustainability and resilience, and neighbourhood connectivity and revitalization.
- *Five Characteristics of High-Quality Parks* presents a framework for understanding and evaluating park quality. A series of key questions help parks professionals ensure their parks are in excellent condition, are accessible to all potential users, provide positive experiences for park users, are relevant to the communities they serve, and are flexible and adaptable to changing circumstances.
- *Building Climate Resilience in Cities Worldwide: Ten Principles to Forge a Cooperative Ecosystem* shares international examples of collaborative resilience-building and synthesizes lessons transferable to any city, based on local contexts and risks. Both municipal and business perspectives (including real estate, banking and finance, insurance, etc.) are addressed, with an eye toward mobilizing funding and governance structures to effectively support climate resilience.

Civic Exchange

- *Unopened Space: Mapping Equitable Availability of Open Space in Hong Kong* provides a comprehensive and data-driven overview of open space in Hong Kong, its distribution across districts and demographics, and policy recommendations.
- The *Open Space Opinion Survey* presents the results of a survey of open space usage, preferences, and park quality in Hong Kong.
- The *Open Space Handbook* provides a journalist's guide to the benefits, challenges, and opportunities of public spaces in Hong Kong.
- *Public Open Space Accessibility in Hong Kong* demonstrates the impact of proximity on open space visiting behaviour and finds a positive relationship between having easy access to open space and self-reported well-being.
- *"Covering Open Space in Hong Kong"*, from *The Young Reporter*, in collaboration with Civic Exchange, covers public space in Hong Kong.

Other Parks Toolkits

- The Trust for Public Land's Pocket Park Toolkit provides a snapshot of successful strategies and case studies partnered with checklists and templates on planning, financing, designing, and operating and maintaining pocket parks.
- The Creating Parks and Public Spaces for People of All Ages (AARP) features worksheets and planning resources to guide local leaders and residents through the planning phases of improving a park or public space. These tools were developed and are used by AARP, 8 80 Cities, and the Trust for Public Land.
- Open Public Space and the Private Sector: A toolkit for overcoming barriers and best practices reviews cities' experiences with privately produced open public spaces and synthesizes recommendations on overcoming barriers to financing, planning, management, and governance. It further identifies and discusses best practices for the private sector to produce high-quality, accessible, and genuinely public green and open spaces in cities.
- The World Bank's publication *The Hidden Wealth of Cities: Creating, Financing, and Managing Public Spaces* identifies effective strategies to plan, fund, and manage government and privately owned public spaces; characterizes the patterns of distribution, quality, and use of public spaces at the city scale for selected cities; and documents the life-cycle processes for planning, implementing, and managing public spaces at the neighbourhood scale.
- The Public Space Learning Toolkit developed by the Hong Kong Public Space Initiative provides guidelines on how and where to look for relevant information about public space in Hong Kong.

Source: Hannah Spicher

Urban Land Institute