

COSY UP TO THE HIGH



At high-rise development Wallich Residence in Tanjong Pagar, a library (above) for residents is located on the 52nd floor while an infinity pool (right) is on the 39th floor.
ST PHOTOS.
JOEL CHAN



Chantal Sajan
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A glass of whisky in hand, Dr Desmond Quek looks out of his floor-to-ceiling window in his apartment on the 50th floor of Wallich Residence in Guoco Tower and is enrapt.

He is part of a growing “vertical community” inhabiting super-high-rise developments.

While mixed-use high-rises have been around for more than two decades, the latest ones boast design and technological innovations which not only enhance modern living, but will also be increasingly essential in a post-pandemic world.

There is a belief in some quarters that tall buildings are risky ventures.

For example, some people think that most high-rise buildings have windows that cannot be opened and are ventilated via central air-conditioning which recirculates stale air in which viruses thrive.

However, modern high-rises often boast innovative designs which make them safe, in more ways than one.

The Wallich Residence, for instance, has windows which can be opened by its residents for natural ventilation.

Each residential unit is also outfitted with an independent air-conditioning system to avoid the hazards of central air-conditioning.

The 64-storey Guoco Tower, Singapore’s tallest building at 290m, has two standalone air handling units (AHUs) for each floor to prevent cross-contamination in its offices.

And a process called ultraviolet germicidal irradiation kills 90 per cent of airborne pathogens.

These innovations were implemented from 2016 to 2017, well before the coronavirus outbreak.

Many modern Grade A offices

and residential units also come with full facilities such as meeting and event rooms as well as gyms and sky-high infinity pools.

“Having a home this high up in the sky is a dream-turned-reality,” says Dr Quek, 42, a senior consultant ophthalmologist practising at the Eagle Eye Centre in Royal Square@Novena. He moved into his three-bedroom leasehold home in January.

“I particularly love the colours and lights, which change throughout the day. It’s like a vivid living picture, where no two moments are the same.”

To unwind, he hits the gym daily before or after work. “Staying just above the MRT station means I no longer need to drive, and this has enabled me to save time on my daily commute and also reduce my carbon footprint.”

Many Singapore skyscrapers meld architecture, engineering and building know-how.

Mr Wong Hock Chuan, general manager for project and facilities management for Guocoland, the developer of Guoco Tower, says the building’s design is hinged on a central 30m by 30m core, built from high-grade reinforced concrete that creates a sturdy spine for the skyscraper.

It is then supported by perimeter columns that carry the edge of each floor slab and, lastly, special beams that bind the core and the perimeter columns into a stable three-dimensional structure.

LIFE

Unlike high-rise buildings in the past, modern ones feature design and technological innovations for greater safety and liveability



“Together, the structure not only carries the load of the building and its occupants, but also resists lateral wind load,” says Mr Wong, referring to wind forces bearing down directly on the skyscraper because it does not have any neighbouring buildings to block winds.

He also shares that Guoco Tower, completed in phases between 2016 and 2017, was conceived such that the structure would avoid exerting pressure on Tanjong Pagar MRT station, which is situated directly below the development.

Besides Guoco Tower, The Altez and Skysuites@Anson, which both stand at 250m in the Downtown area, also house vertical communities.

Despite the coronavirus pandemic’s impact on construction projects, CapitaLand is on schedule to launch another skyscraper in the city centre.

CapitaSpring, at 88 Market Street, is expected to open next year, a 280m-high development that will feature the debut of Singapore’s highest urban farm.

CapitaSpring is designed by award-winning firms Bjarke Ingels Group (BIG), which conceived the Google Mountain View campus in

California; and Carlo Ratti Associati (CRA), which recently renovated the Agnelli Foundation headquarters in Turin, Italy, augmenting a 100-year-old structure with an IT-driven building.

The upcoming 51-storey CapitaSpring will have 29 floors of office space. It will also house the 299-unit Citadines serviced residences spread over eight floors and managed by The Ascott Limited, and 12,000 sq ft of retail space.

The building will be one of the greenest in Raffles Place with a four-storey Green Oasis situated 100m above the ground.

The green lung will combine meeting facilities, work pods, fitness corners, an amphitheatre, a cafe and a spiral stairway set within a botanical promenade, offering sweeping views of the city skyline. The rooftop will house Singapore’s highest urban farm.

Mr Bjarke Ingels, founding partner at BIG, says one of the biggest inspirations driving CapitaSpring is the blending of indoor and outdoor spaces. “Elements like the Green Oasis and the rooftop garden all reveal themselves to the outside by breaking apart the regimented

geometry of the facade,” he says.

Mr Carlo Ratti, founding partner of CRA, adds: “What we’ve seen in the 21st century is a lot of sprawl. Cities moving outside into the countryside and into nature,” he says. “But we can do the opposite today – we can bring nature inside our urban cities and even inside our buildings.”

Long before Covid-19 reared its ugly head, CapitaSpring had already been designed for maximum safety with the latest tech and digital features.

Besides facial recognition-activated turnstiles, its destination control system will activate and assign tenants and visitors to specific lifts. This allows for contactless access all the way to the tenant’s designated floor as well as enhanced management of passenger loads in lifts.

There will also be robots and sensors to further reduce contact points in the skyscraper.

CapitaSpring’s AHUs will also be fitted with UV lamp systems to eliminate micro-organisms and purify the air entering the office premises.

CapitaLand is currently preparing for the launch of CapitaSpring

next year by ramping up trials of safety equipment and practices at selected properties.

For instance, a high-tech Ultra UV handrail disinfection device is being tested at Capital Tower in Robinson Road and Galaxis in Fusionopolis Place to continuously disinfect the handrail when the escalator is in use.

According to Mr David Calkins of global architecture firm Gensler, high-rises should not be high risk.

“Ventilation is highly important,” says Mr Calkins, who is Gensler’s managing principal for Asia Pacific and the Middle East.

“Harvard’s Healthy Buildings Lab, based on 40 years of scientific evidence, recently compiled a list of nine factors such as noise and moisture contributing to a healthy building.”

Harvard University in Cambridge, Massachusetts, identified key health performance indicators that provided insights into how a building is performing.

“To ensure healthy buildings, ventilation was No. 1 on the list of performance indicators.”

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Root Awakening

Fiddle Leaf Fig can grow outdoors into a big tree

I bought this hardy-looking plant (right) a few months ago. The florist told me it is tough and can withstand very hot sun and is good for the balcony. What plant is it?
Hong Be

The plant is the Fiddle Leaf Fig. Its botanical name is *Ficus lyrata* and it can grow into a large tree when planted in the ground.

It has become popular recently due to its attractive large leaves and stately growth habit.

It is usually produced under shadier conditions in a production nursery and can be under full sun eventually. The transition process has to be done in a gradual manner to avoid burning the leaves under direct sunlight.

Grown under direct sunlight, the plant has to be watered regularly to keep it adequately hydrated. It should not be allowed to dry out.



PHOTOS: CHRISTINE CHUA, HONG BE, SHIRLEY LEE

Sweet potato leaves are all edible

Are the leaves of my sweet potato plant (right) edible?
Christine Chua

The leaves of sweet potato plants are edible. However, some varieties may produce leaves that are more tender than others. It is largely a personal preference.

If your plant produces rather fibrous leaves, you may have to harvest the younger growth for cooking.

Other preparation procedures like “stringing” the petioles to remove excessive fibre or blanching or steaming the plant parts may also help to improve palatability.



Ming Aralia has edible leaves

I was told that, in the Philippines, the young leaves of this shrub (right) are used in salads. Is it edible?
Shirley Lee

The plant is botanically known as *Polyscias fruticosa* and its common name is the Ming Aralia.

Due to its attractive, fine foliage, it is cultivated as a potted house plant and can sometimes be found in outdoor landscapes too.

Young leafy shoots of this plant are sometimes sold in the Geylang Serai market where they are called Pokok Teh.

They have a distinct scent and flavour, and are cooked or eaten raw as a vegetable, or cooked with fish.

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• Answers by Dr Wilson Wong, an NParks-certified practising horticulturist, parks manager and ISA-certified arborist. He is the founder of Green Culture Singapore and an adjunct assistant professor (Food Science & Technology) at the National University of Singapore.

• Have a gardening query? E-mail it with clear, high-resolution pictures of at least 1MB, if any, and your full name to stlife@sph.com.sg. We reserve the right to edit and reject questions.