

## FACTSHEET A

## Skyrise Greenery Awards 2017

#### Background

Launched in 2008, the Skyrise Greenery Awards is the first in the region to recognise and reward skyrise greening efforts in developments. Now into its seventh edition, the Awards honour the team effort of building owners, developers, architects, designers, and landscape contract managers who have creatively integrated sky gardens and vertical greenery in their projects.

Past award-winning projects include Newton Suites (2008), Orchard Central (2009), Khoo Teck Puat Hospital (2010), 158 Cecil Street (2011), PARKROYAL on Pickering (2013), and Westgate (2015). These developments range from commercial, residential and even educational and healthcare institutions.

The Skyrise Greenery Awards is organised by the National Parks Board (NParks), supported by Building and Construction Authority, Landscape Industry Association Singapore, Singapore Green Building Council, Singapore Institute of Architects, Singapore Institute of Landscape Architects and Urban Redevelopment Authority.

#### Skyrise Greenery Awards 2017

Submissions were evaluated based on the following building types:

- 1. Commercial/Industrial
- 2. Community Facility
- 3. Educational Institution
- 4. Residential (Multi-Units)
- 5. Residential (Small-Scale)

Such categorisation allows projects of a similar scale and context to be judged against one another.

The Skyrise Greenery Awards 2017 received 177 entries, the highest number of entries since its inception.

Number of entries received in past awards:

- 2008 awards received 9 entries
- 2009 awards received 14 entries
- 2010 awards received 17 entries
- 2011 awards received 27 entries
- 2013 awards received 77 entries
- 2015 awards received 123 entries



The Skyrise Greenery Awards 2017 saw more than half of its winning projects featuring community-centric installations. These projects are found in various development types of contrasting natures but all generate social value that is beneficial for its users.

#### <u>Prizes</u>

The award categories for Skyrise Greenery Awards 2017 remain similar to the previous format: Outstanding, Excellence and Special Awards. All team members of winning projects will receive plaques and certificates. The winner of the Outstanding Award receives SGD\$8,000. Excellence Award winners receive SGD\$1,500 each and Special Award winners receive SGD\$500.

Categories	Description	Prizes/Awards
Outstanding Award	Most outstanding skyrise greenery	SGD\$8,000, trophy,
	development	plaque, certificate
Excellence Award	Projects that demonstrate excellence	SGD\$1,500, trophy,
	in skyrise greenery designs	plaque, certificate
Special Award	Projects that exhibit specific merits:	SGD\$500, trophy, plaque,
	Edible Garden, Therapeutic Garden,	certificate
	Community Involvement, Public	
	Infrastructure	



# OUSTANDING AWARD AND EXCELLENCE AWARD (COMMUNITY FACILITY) – Kampung Admiralty

Project Address	676 Woodlands Avenue 71 Singapore 730676
Type of Development	Integrated public development
Completion Date	August 2017

Project Team

Owner	Housing & Development Board
Architect	WOHA Architects Pte Ltd
Civil & Structural Engineer	Ronnie & Koh Consultants Pte Ltd
Mechanical & Electrical	AECOM Pte Ltd
Engineer	
Quantity Surveyor	Davis Langdon KPK (Singapore) Pte Ltd
Landscape Consultant	Ramboll Studio Dreiseitl Singapore Pte Ltd
Main Contractor	Lum Chang Building Contractors Pte Ltd

Kampung Admiralty is Singapore's first integrated public development that brings together a mix of public facilities and services under one roof. The traditional approach is for each government agency to carve out its own plot of land, resulting in several standalone buildings. This one-stop integrated complex maximises land use, and is a prototype for meeting the needs of Singapore's ageing population.

Located on a 0.9 hectare site with a height limit of 45m, the scheme builds upon a layered 'club sandwich' approach. A "Vertical Kampung (village)" has been devised, with a People's Plaza in the lower stratum, a Medical Centre in the mid stratum, and a Community Park with 104 studio apartments for seniors in the upper stratum. These three distinct strata integrate the various building uses and free up the ground level. Easy access to healthcare, social, and commercial amenities support inter-generational bonding and promote active ageing.

The informal approach of the landscape design is reminiscent of the simple kampung life, complete with community farming plots that encourage interaction. Local fruit trees that were once common in the kampungs are planted to give the seniors familiarity of the past, and to generate the interest of the young. A wide range of thoughtful planting schemes create a diverse landscape for users that mimic the wild and attract biodiversity, such as butterflies and small birds.

Efficient storm water harvesting and irrigation systems were developed for the extensively landscaped areas. The water is treated with natural filters before being discharged into the rainwater harvesting tank and vegetated swales on the first level, and into the public drains and canals. This water-sensitive urban design shows how the challenges of resource management can be reconciled with environmental protection.



## Judges' Citation

Kampung Admiralty is an exemplary example of how greenery can be integrated into community facilities. Its ability to interweave lush greenery without compromising the usage of space for community amenities sets the bar for future community facilities to follow suit, demonstrating that such a configuration of community facilities is possible and effective. Greenery cascading from the topmost rooftop into the open courtyard space provides visual green relief not only for visitors within the building, but also for residents of the neighbouring residential blocks. The edible garden plot on the topmost rooftop provides a communal focal point for community gardening groups to engage with one another through a common passion for gardening. With its wheelchair accessible planter boxes located on one side of the plot, this edible garden is not only inclusive for all ages but also takes into consideration people with disabilities and affords them the opportunity to garden alongside fellow volunteers. With the increasing challenge of limited land space, the espalier fruit trees located on the rooftop demonstrate possibilities for space saving planting techniques.

#### Media Photos



Credit: Patrick Bingham-Hall





Credit: Patrick Bingham-Hall



Credit: Ramboll Studio Dreiseitl Singapore Pte Ltd





Credit: Ramboll Studio Dreiseitl Singapore Pte Ltd



Credit: Ramboll Studio Dreiseitl Singapore Pte Ltd





Credit: WOHA Architects Pte Ltd



## EXCELLENCE AWARD (COMMERCIAL/INDUSTRIAL) – Oasia Hotel Downtown

Project Address	100 Peck Seah Street Singapore 079333
Type of Development	Hotel
Completion Date	April 2016

#### Project Team

Owner	Far East Organization
Architect	WOHA Architects Pte Ltd
Landscape Consultant	Sitetectonix Pte Ltd
Interior Design	Studio Patricia Urquiola
Mechanical & Electrical	Rankine & Hill (S) Pte Ltd
Engineer	
Civil & Structural Engineer	KTP Consultants Pte Ltd
Main Contractor	Woh Hup (Private) Ltd
Quantity Surveyor	Rider Levett Bucknall

Envisaged as a 'tropical tower' in a concrete jungle, the Oasia Hotel Downtown incorporates lush greenery on its façade and terraces. The shady tower provides physical respite and relief to its occupants, and visual relief amidst a concrete city.

Landscaping is an integral part of the design palette. With more than 50 species of trees, shrubs and creepers, the tower creates a vertical ecosystem and reintroduces biodiversity into the city. In achieving an overall Green Plot Ratio of over 1,000% (i.e. the combined blue and green area is more than 10-times the site area), the tower compensates for the lack of greenery in the densely built-up CBD.

The façade, comprising expanded aluminium mesh in tones of red, is designed as a backdrop to more than 20 species of creepers. Behind the façade, the creepers are planted in prefabricated fibre-glass planters on every storey for even coverage. Beyond the planters are aprons of steel catwalks with safety ladders and railings to provide safe and practical access, without the need for external gondolas for maintenance. Incorporation of auto-irrigation systems minimises the need for day-to-day maintenance.

Sky terraces are set between alternating L-stacks of offices and rooms, and greenery stretches to the perimeter of each terrace. To secure the trees against the wind, they are tied to one another and individually to ground anchors with steel cables.

#### Judges' Citation

Oasia Downtown Hotel was lauded for its inclusiveness of greenery which can be enjoyed by everyone – from pedestrians at street level to occupants of neighbouring buildings, and occupants of the building itself. Stacked in alternating L-shaped blocks, the sky terraces are designed such that all occupants will have views of the greenery on the sky terraces from the comfort of their rooms. Due to the configuration of the building, the circulation of air flow further



enhances the experience of the users of the sky terraces. The climbing plants help provide passive shading as it grows and clads the entire red-toned façade which acts as a structural environmental buffer. Maintenance of the green façade cladding the entire development was carefully planned with generous walkways situated behind the green façade, ensuring a safe and effective method of maintenance.

#### Media Photos



Credit: Patrick Bingham-Hall



Credit: Patrick Bingham-Hall





Credit: Patrick Bingham-Hall



Credit: Patrick Bingham-Hall





Credit: WOHA Architects Pte Ltd



Credit: WOHA Architects Pte Ltd



## EXCELLENCE AWARD (EDUCATIONAL INSTITUTION) – NUS Ventus

Project Address	8 Kent Ridge Drive
	Singapore 119246
Type of Development	Educational institution
Completion Date	January 2015

#### Project Team

Owner	National University of Singapore
Architect	MKPL Architects Pte Ltd
Landscape Architect	ICN Design International Pte Ltd
Green Wall Specialist	Consis Engineering Pte Ltd
Main Contractor	Toh Chin Leong Construction Pte Ltd

Ventus welcomes pedestrians and building users into the building and weaves itself around its natural site elements, using trees as markers for its architectural form. A similarly gentle approach to site intervention was made with regards to the existing trees. As evidenced in the construction of the building, measures were taken to conserve several mature trees at the site, and conserve the structural integrity of the existing sloped landform and storm water drainage.

Naturally ventilated vestibules are used as break-out areas between the banks of airconditioned offices. Vistas of green are integrated within the vestibules, while generous and well-ventilated public seating areas are constantly enveloped by the lush greenery of the site.

The plants offer insulation, reducing the heat drawn into the rooms below and decreasing the amount of energy needed to cool the buildings. The roofs are also used to cleanse storm water as it filters through the plants and soil. The green wall boasts an internal maintenance service access way and intelligent automated irrigation system, ensuring a sustainable and energy-saving environment.

The community garden on the rooftop provides opportunities for social interaction among staff and students. Interpretive signage provide visitors with useful information about the plants in the garden.

#### Judges' Citation

NUS Ventus explores a new typology in office building design by blending 'smart' environmental features with a landscape approach that promotes preservation, sustainability, and biodiversity. The curious architectural form is a commendable effort at site adaption – the naturally undulating topography and existing mature trees resulted in an ecological-centric design that minimises environmental disturbances while maximising natural sunlight and ventilation in the premises. In addition, the selection of a low maintenance planting palette and intelligent automated irrigation system ensures ease and sustainability of maintenance. Other design for maintenance elements include the incorporation of a hidden maintenance service access way behind the prominent green wall. Also remarkable is Ventus' success at habitat creation in a highly urbanised setting. The successful integration of greenery between the



building and its surroundings is evidenced by the plethora of fauna it attracts, such as the Spotted Wood Owl and the Oriental Pied Hornbill.

#### Media Photos

Credit: National University of Singapore













## EXCELLENCE AWARD (MULTI-UNITS RESIDENTIAL) – OUE Twin Peaks

Project Address	33 Leonie Hill Road Singapore 239197
Type of Development	Condominium
Completion Date	February 2015

#### Project Team

Owner	OUE Ltd
Landscape Architect	Bensley Design Studio

Lush greenery is not only pervasive on the ground floor of OUE Twin Peaks, but also on the highest floor of both its residential towers. Vertical greenery is integrated into the walls of the roof gardens to soften and frame the view of the city skyline. A mixture of green and coloured foliage creates a bold and defined design pattern.

#### Judges' Citation

OUE Twin Peaks demonstrates a marriage between artistry and greenery. Artistic sculptures can be found nestled amongst the greenery throughout the development, with the sculptures enhancing the variety of forms and patterns of the lush greenery. Establishing that greenery took precedence over monetary revenue from prime penthouse units, a communal rooftop garden was developed on the topmost floor in place of penthouse units. Taking into consideration the climate of Singapore, the topmost rooftop spaces were designed semienclosed so as to create thermal comfort and usability of the rooftop during the day. The clever use of green wall partitions also help create corners for privacy. The lush greenery found on the lower levels form a seamless integration with the external roadside greenery, providing residents with a view of a green and blue carpet from their units.

Media Photos







## SPECIAL AWARD (EDIBLE GARDEN) – The Farm at One Farrer

Project Address	1 Farrer Park Station Road Singapore 217562
Type of Development	Hotel
Completion Date	June 2015

#### Project Team

Owner One Farrer Pte Ltd	
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One Farrer Hotel & Spa was conceptualised as a cultural and eco-friendly development for hotel guests, visitors, and those who work there. This vision was driven by the development of 14 landscaped tropical and water gardens over the 20 floors of the project, which are complemented by over 700 pieces of contemporary Asian abstract art.

The installation of skyrise greenery softens the vertical architecture of the building while providing cooling respite on the different levels of the three "Hotels within a Hotel". The sixth floor houses a Lifestyle Podium, which is a park of tropical gardens that provide a spacious setting for the conference centre and water park.

A platform terrace which overlooks the Lifestyle Podium hold an 11,000 sq ft farm and orchard. This fully operational farm and orchard provides users with a variety of herbs, spices, vegetables and fruits, and serves as a hotel attraction while supplying ingredients to the restaurants and on site cooking school within the building.

#### Judges' Citation

The Farm at One Farrer is noteworthy for its setting in an atypical environment – a hotel facility. As a hospitality provider, One Farrer has succeeded in creating a wholesome lifestyle environment for its guests through the offerings of its fully functional rooftop edible garden. The garden is exceptionally well-maintained and is utilised as a multi-purpose leisure and business venue. It well deserves recognition for the benefits it brings about in an uncommon location, beyond that of a regular aesthetic garden.

Media Photos





Credit: National Parks Board



Credit: One Farrer Hotel & Spa



## SPECIAL AWARD (EDIBLE GARDEN) – Taman Jurong Zone D RC

Project Address	364A Kang Ching Road Singapore 611346
Type of Development	Multi-storey carpark
Completion Date	October 2016

#### Project Team

Owner	People's Association (Taman Jurong Zone D RC)
Installer	Citiponics

The rooftop deck of this multi-story car park was converted into a site for vegetable farming using an Aqua-Organic System (AOS). This intelligent urban growing technology has multiple benefits: it is hygienic, water-saving, space-saving, is easy to operate, and is anti-mosquito breeding. Such features make the AOS well-suited for growing edibles sustainably and innovatively on rooftops. The produce harvested from the garden is distributed to needy residents living in the neighbourhood.

#### Judges' Citation

The collaboration between the town council and system developer, Citiponics, is a fantastic way to activate underutilised rooftop spaces and explore alternative ways of growing various types of edibles simultaneously. Unlike conventional hydroponics systems, Citiponics's innovative aqua-organic system is an excellent attempt at growing edibles efficiently and safely on a rooftop. Such partnerships should be encouraged to motivate and provide a suitable platform for budding edible gardeners to experiment with growing their own food.

Media Photos Credit: Citiponics











## SPECIAL AWARD (EDIBLE GARDEN) – Eco-Community Garden at Our Tampines Hub

Project Address	1 Tampines Walk Singapore 528523
Type of Development	Integrated public development
Completion Date	August 2016

#### Project Team

Owner	People's Association
Architect	DP Architects Pte Ltd
Landscape Consultant	DP Green Pte Ltd
Main Contractor	Hexacon Construction Pte Ltd
Landscape Contractor	GTH Engineering & Construction Pte Ltd

Our Tampines Hub (OTH) is Singapore's first integrated community and lifestyle hub comprising a total of 13 government agencies as stakeholders. In line with OTH's programmes and facilities to serve the community, the landscape design is geared towards creating multiple layers of pleasant public spaces throughout the building. Furthermore, the architectural design with open atriums and connecting bridges means that the sky terraces and rooftop gardens can be admired by building users from various vantage points.

The highlight of the fifth story is the Eco-Community garden. The 25,000 sq. ft rooftop Eco-Community Garden has become a meeting point for gardeners from all walks of life to gather over their shared passion for gardening. Universal design principles are taken into account, withwheelchair accessibility to the roof garden, raised planter beds to facilitate easier reach for the elderly, as well as specially designed planters for wheelchair users.

The community garden features a wide array of over 30 edible species, including leafy and fruited vegetables, fruits and herbs. The produce is shared amongst the residents and their community garden volunteers. The garden is also equipped with an ecoHybrid Digester, where up to 1.4 tonnes of garden and food waste from building tenants are converted into high quality organic fertilizer, which then goes back into the garden. Free bags of the organic fertilizer are distributed amongst residents and volunteers at the garden on every 3<sup>rd</sup> Sunday of the month.

#### Judges' Citation

With the proliferation of rooftop gardens, few stand out from the rest in terms of usability and visibility. The Eco-Community garden at Our Tampines Hub is a noteworthy rooftop garden that fulfils this purpose. The garden is maintained regularly by volunteers who plant edible species and is also enjoyed by visitors to the integrated community hub. The sheer extent of edible species planted, high quality of planting, and numerous harvests is testimony to its success as a sustainable edible garden. Moreover, the application of universal design principles also ensures inclusivity; specially designed planters allow wheelchair access and come in varying heights to cater to a wide range of users.



Media Photos Credit: National Parks Board





## SPECIAL AWARD (THERAPEUTIC GARDEN) – Ren Ci @ Bukit Batok St 52

Project Address	31 Bukit Batok St 52 Singapore 659251
Type of Development	Nursing Home
Completion Date	March 2016

#### Project Team

Owner Ren Ci Hospital
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This previously underutilised site was retrofitted to include greenery and amenities to help create a positive healing environment for the home. Green walls conceal unsightly concrete walls and service units, while planter beds installed with benches provide seating for residents. In addition, a water feature gives an added dimension of sound stimulation. Ren Ci is one of the first nursing homes in Singapore to implement a therapeutic garden-inspired garden for its residents.

Ren Ci @ Bukit Batok St 52 is a retrofit project funded under the Skyrise Greenery Incentive Scheme.

#### Media Photos Credit: National Parks Board





# SPECIAL AWARD (THERAPEUTIC GARDEN) – NTUC Health Nursing Home (Jurong West)

Project Address	50 Jurong West Street 92 Singapore 648967
Type of Development	Nursing Home
Completion Date	May 2016

#### Project Team

Owner	NTUC Health Co. anarativa Limitad
Owner	NTUC Health Co-operative Limited

Fitted with colourful green walls and densely planted planter beds, this therapeutic garden serves the clients at the home by creating a green space for them to enjoy and recuperate in. As a retrofit project, NTUC Health has successfully executed a rooftop garden with therapeutic elements that caters to the specific needs of its users.

NTUC Health Nursing Home (Jurong West) is a retrofit project funded under the Skyrise Greenery Incentive Scheme.

## Combined Judges' Citation for Ren Ci @ Bukit Batok St 52 and NTUC Health Nursing Home (Jurong West)

Increasing recognition of the therapeutic benefits of greenery has motivated the implementation of therapeutic gardens at Ren Ci Nursing Home @ Bukit Batok and NTUC Health @ Jurong West. Apart from large healthcare clusters, smaller nursing homes such as these two are taking steps in the same direction to improve human health and well-being by incorporating greenery in their premises. As one of the first few nursing homes in Singapore to retrofit their existing rooftops into gardens, they ought to be commended for their move to provide a positive healing environment for users.

Media Photos

Credit: National Parks Board







## SPECIAL AWARD (COMMUNITY ENGAGEMENT) – Banyan Home @ Pelangi Village

Project Address	12 Buangkok Green, Pelangi Village Singapore 539754
Type of Development	Nursing home
Completion Date	August 2016

#### Project Team

Owner Chee Hoon Kog Moral Promotion Society	
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The rooftop greenery at Banyan Home @ Pelangi Village benefits its clients, staff, and the community. Staff volunteers regularly maintain the garden which provides a platform for stress relief, whilst clients have an additional green space for their enjoyment. Produce that is harvested from the garden is sold to the local community with the proceeds from sales going back to the garden for its upkeep.

#### Judges' Citation

The rooftop garden at Banyan Home @ Pelangi Village is a retrofit project that serves those at the nursing home in more ways than one. Not only do clients at the home get to enjoy visual relief from a greened up environment, staff also benefit from the therapeutic effects of gardening. The contribution of time and effort by staff to the garden generates social value that benefits the home and its clients and is thus deserving of recognition.

#### Media Photos

Credit: Banyan Home @ Pelangi Village





## SPECIAL AWARD (COMMUNITY ENGAGEMENT) – SP Agri Farm

Project Address	2 Kallang Sector Singapore 349277
Type of Development	Industrial office
Completion Date	June 2017

#### Project Team

Owner SP Group	
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The SP Agri Farm is a thriving oasis of greenery in the midst of the Kallang industrial estate – with lush bushes of herbs, verdant vegetables, and flourishing fruit trees. Located at an outdoor area on the seventh floor of SP Group's headquarters in Kallang Sector, the farm is home to more than 50 varieties of edible plants, totalling up to more than 300 "residents".

The Agri Farm was set up in May 2017, and is part of SP's philosophy of creating a space for staff to not only work, but also to live and play together. The building has been awarded Green Mark Platinum certification, the highest tier possible under the Building & Construction Authority's (BCA) Green Awards.

The farming space is made up of ten individual plots, and polyculture is practiced. The plants are selected based on their hardiness, climate suitability, required sunlight intensity, root depth, amount of water needed, and ease of propagation. No pesticides are used.

A mixture of commonly-used and lesser-known herbs and vegetables are grown. The latter was chosen to educate and acquaint garden members and SP staff with a wider variety of herbs and vegetables.

Manned by a group of 44 staff volunteers, they take turns to maintain the crops in the plot assigned to them and harvest the produce, make new friends, meet colleagues from other departments, and bond over a common interest for gardening.

#### Judges' Citation

Beyond the provision of standard greenery at its new headquarters, the management at Singapore Power catered for a green space, called the SP Agri Farm, for staff to garden. This purposeful move by the corporate group provides a recreational platform for staff to relieve work stresses as well as strengthen workplace bonds through a shared love for gardening. The active involvement and dedication of staff volunteers to upkeep the garden at their own time is inspiring and commendable – a remarkable example of achieving quality work-life balance at the workplace.



## Media Photos



Credit: SP Group



Credit: National Parks Board



## SPECIAL AWARD (PUBLIC INFRASTRUCTURE) – Sentosa Express

Project Address	39 Artillery Ave Singapore 099958
Type of Development	Public infrastructure
Completion Date	June 2017

#### Project Team

Owner	Sentosa Development Corporation
Contractor	Consis Engineering Pte Ltd
Consultant	TCP Consultants Pte Ltd

In line with Sentosa Development Corporation's (SDC) commitment to developing a fun, smart, and sustainable Sentosa, SDC constantly seeks innovative solutions to enhance the environmental sustainability of the island.

To reduce the urban island heat effect, an innovative green wall system has been introduced to the pillars of the Sentosa Express train track along Sentosa Gateway. The green walls are designed to be visually pleasing while minimising maintenance efforts and ensuring safety.

A green wall of a height of 4-5 metres would usually require maintenance workers to climb upwards to reach the top layers of the wall. Given the limited space, workers may also need to place ladders along the adjacent road to maintain to replace the plants. The new green wall system has therefore been designed with an internal ladder and maintenance walkway within it, allowing workers to work from the inside, thereby improving safety and productivity. In addition, the top portion of the green wall system has been covered to protect workers from being electrocuted by high tension cables and moving Sentosa Express trains.

Other innovative features include the channelling of excess water from the green wall irrigation system to the adjoining landscape bed, reducing the need for additional water usage. A wide variety of plants are also used, and were carefully chosen based on their ability to thrive under the sun. The plants have been laid in a pattern that mimics waves, and are easy to replace when necessary. The variety of plants on the green wall also creates pockets of spaces that strengthen the biodiversity on the island.

With the variety of plants as well as their different textures and depth, the green wall enhances the sense of arrival into Sentosa – The State of Fun, by enhancing the 'tropical feel' of the island and visually softening the concrete pillars.

#### Judges' Citation

Located next to the main roads and cycling pathways of the Sentosa Gateway, these green wall columns of the Sentosa Express demonstrate a safe and sustainable method of greening up public infrastructure. The green walls were designed with internal ladders and maintenance walkways situated behind the green wall to ensure a safe maintenance environment for all users – the vehicles on the road, the cyclists on the pathways and the maintenance workers.



In line with the theme of a tropical island feel, a variety of colourful plants were selected, creating a vibrant gateway environment for all visitors on various modes of transport.

## Media Photos



Credit: Sentosa Development Corporation



Credit: National Parks Board



## SPECIAL AWARD (PUBLIC INFRASTRUCTURE) – Bukit Batok West Shopping Centre

Project Address	Block 163-158 Bukit Batok St 11 Singapore 650158
Type of Development	Public housing estate
Completion Date	September 2016

#### Project Team

Owner	Housing Development Board
Architect	Interconsultants Pte Ltd
Civil & Structural Engineer	Fong Consult Pte Ltd
Mechanical & Electrical	PTP Engineers Pte Ltd
Engineer	
Quantity Surveyor	OTN Building Cost Consultants Pte Ltd
Main Contractor	CMB Pte Ltd
Green Roof Contractor	Uniseal Singapore Pte Ltd

Bukit Batok West Shopping Centre was built over 30 years ago in 1985. In 2016, the Neighbourhood Centre (NC) was given a comprehensive makeover. The makeover comprised several firsts, including the first community pavilion with rooftop greenery, and the first herb garden in an NC.

Spanning about 280 sqm, the community pavilion is the first in an NC to be fitted with a green roof. The green roof sports a variety of hardy plants in different hues, and comes fitted with its own inbuilt self-irrigation system to enable it to harvest rainwater for irrigation. Aside from providing visual relief to residents in the surrounding blocks, the green roof helps to lower the ambient temperature within the pavilion, resulting in a more comfortable and conducive space for the community to enjoy.

#### Judges' Citation

As more public housing estates mature, it is necessary to continue to upgrade these spaces to ensure that a high quality of life is maintained for residents. The town council at Bukit Batok West clearly recognises this, and as such has fitted its community pavilion with a green roof and climbers as part of its upgrading works. This is the first community pavilion in an NC fitted with a green roof. A move as such demonstrates the commitment to enhancing quality of life through greenery and is most certainly praiseworthy.

#### <u>Media Photos</u> Credit: Interconsultants Pte Ltd









## SPECIAL AWARD (PUBLIC INFRASTRUCTURE) – Shell Tampines Ave 2

Project Address	9 Tampines Avenue 2 Sinapore 529731
Type of Development	Petrol station
Completion Date	May 2017

#### Project Team

Owner	Shell Eastern Petroleum (Pte) Ltd
Project Manager	CBRE GWS Holdings (S) Pte Ltd
Contractor	Wing Tuck Engineering Pte Ltd
Design Agency	FITCH Design Pte Ltd

Shell Tampines Avenue 2 is the first petrol service station in Singapore to feature refreshing green walls. Accented with complementary earthy colours and woody tones, the spacious station aims to be an oasis from the bustle of the roads.

The green walls are automatically irrigated daily via an on-site rainwater harvesting system, which is projected to save more than a million litres of water per year.

#### Judges' Citation

The judges applauded Shell group for taking the initiative to develop smart city solutions in the realm of personal transport to support active mobility in Singapore. As a pilot project, the petrol station at Tampines Ave 2 exhibits various sustainability features to improve customer experience and reduce carbon footprint. Some of these features include a self-irrigating green wall, solar panels, and a rainwater harvesting system – all of which are never before seen in petrol stations island-wide.

<u>Media Photos</u> Credit: Shell Eastern Petroleum (Pte) Ltd









## **APPENDIX 1: Past Winning Projects**

SIA-NParks Skyrise Greenery Awards 2008:

- Naumi Hotel (Singapore, Hotel)
- Newton Suites (Singapore, Residential development)
- One George Street (Singapore, Office building)
- VivoCity (Singapore, Shopping mall)

SIA-NParks Skyrise Greenery Awards 2009:

- Completed projects:
  - o 1<sup>st</sup> prize Orchard Central (Singapore, Shopping mall)
  - o 2<sup>nd</sup> prize Central Horizon (Singapore, Residential development)
- Yet to be constructed projects (as of the awards 2009)
  - 1<sup>st</sup> prize Solaris (Singapore, Office building)

SIA-NParks Skyrise Greenery Awards 2010:

- Completed projects:
  - o 1<sup>st</sup> prize Khoo Teck Puat Hospital (Singapore, Hospital)
  - 2<sup>nd</sup> prize 36 & 38 Armenian Street (Singapore, Office/Residential development)
  - 3<sup>rd</sup> prize Head for the Hill (Melbourne, Office building)
- Yet to be constructed projects (as of 2010)
  - o 1<sup>st</sup> prize R4 apartments (Singapore, Residential development)

SIA-NParks Skyrise Greenery Awards 2011:

- Completed projects:
  - 1<sup>st</sup> prize Hanging Garden in CBD A Fusion of "Archi-Nature"• at 158 Cecil Street (Singapore, Office building)
  - o 2<sup>nd</sup> prize The Helios Residences (Singapore, Residential development)
  - 3<sup>rd</sup> prize myVillage (Singapore, Shopping mall)
- Honourable mention projects:
  - o 6 Battery Road Vertical Garden (Singapore, Office building)
  - MapleTree Business City (Singapore, Office development)
  - Treelodge @ Punggol (Singapore, HDB estate)
  - Universal Studios Singapore, Resorts World Sentosa (Singapore, Theme Park)

NParks Skyrise Greenery Awards 2013:

- Outstanding Award:
  - PARKROYAL on Pickering
- Excellence Awards:
  - Double Bay Residences
  - Hougang Primary School



- ITE Headquarters and ITE College Central @ Ang Mo Kio
- o Ocean Financial Centre
- Punggol Breeze
- T House
- Special Awards Community Engagement:
  - o Bedok View Secondary School
  - Sky Garden @ Jurong Central
- Special Award Design for Maintenance
  - Coach Park Link Bridge at Sentosa
  - Tree House
- Special Award Extensive Green Roof
  - Education Resource Centre
- Special Award Innovation
  - Hougang Primary School
  - Wellington Primary School
  - Special Award DIY Project
    - Hougang Primary School
- Special Award Skyrise Greenery in a Garden
  - Gardens by the Bay

NParks Skyrise Greenery Awards 2015:

- Outstanding Award:
  - Westgate
  - Excellence Awards:
    - Jem (Commercial/Industrial)
    - Lee Kong Chian Natural History Museum (Community Facility)
    - National Gallery Singapore (Community Facility)
    - Nanyang Polytechnic (Educational Institution)
    - SkyTerrace @ Dawson (Residential Multi-units)
    - The Interlace (Residential Multi-units)
    - Cornwall Gardens (Residential Small-scale)
- Special Awards Community Engagement:
  - Spectra Secondary School
- Special Awards DIY Project:
  - The Green Line @ NatSteel
- Special Awards Retrofit Project:
  - KK Women's and Children's Hospital
  - Liang Seah Place

More information can be found at <u>www.nparks.gov.sg/skyrisegreenery</u>