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SEAB
SOUTHEAST ASIA BUILDING

July / August 2019



Jewel Changi Airport

Singapore

ARCHITECTURE Hospitals

SPECIAL FEATURE Facade System

ARCHITECT'S CORNER Interviews with Keith Griffiths, Chairman and Global Design
Principal, Aedas and Chris Tan, Director, RSP Architects Planners & Engineers

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On the Cover: Jewel Changi Airport. Photo credit: Jewel Changi Airport Devt

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Dear readers, thank you for picking up the July/Aug issue of *SEAB*. In this issue, we take a look at hospital and healthcare facility design in various parts of the world. One of the

common objectives of most architects is to create a patient-centric design, one which, meets the needs of the patients as well as the operational function of the hospital. You can read more about the design approach in the featured projects.

In the Special Feature section, our focus is on facade projects. A facade system or material plays an important role in giving a unique look to the structure of the building as well as making it energy efficient. Our top story is on the newly opened iconic Jewel Changi Airport in Singapore.

For *SEAB*, 2019 marks a special year as it celebrates its 45th anniversary in this year. The magazine has grown from strength to strength over the years and is now available online from our website in a downloadable format. It is also on Facebook and Twitter to keep in touch with its readers from all over the world.

To commemorate the anniversary, we have invited our readers, advertisers, media partners, exhibition organisers, building suppliers and other industry professionals to say a few words about how the magazine has evolved over the years and served their needs.

Enjoy reading this issue!

Amita Natverlal

NEXT ISSUE THEMES

- Architecture + Interior – Green Buildings
- Special Feature – Green Roofs
- M. E. P. Systems – Mechanical, Electrical and Plumbing Systems



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Singapore's Accelerating Asia launches dedicated ASEAN 'Smart City' Accelerator programme

Singapore – The Australian Government announced that it will partner with Accelerating Asia, a regional network of startup programmes, to develop a Singapore-based ASEAN Smart Cities Accelerator (ASCA).

ASCA is a first of its kind seven-month startup accelerator programme which is designed to provide the best possible support for early-stage Southeast Asian startups specialising in future city development, an initiative supported by Australia's Department of Foreign Affairs and Trade (DFAT).

ASCA is a seed-stage accelerator programme that selects, funds and provides a development programme for smart city startups in Southeast Asia through access to regional opportunities, knowledge, networks, and resources. The programme is split into two parts beginning with a three month programme period with weekly activities in Singapore

and followed by four months that consists of remote support, a Demo Day as well as a one-week immersion trip. Women entrepreneurs are vital to the success of this programme and are encouraged to apply. The programme is looking for pre-seed or seed-stage startups from all ASEAN member countries that already have a product or solution and a viable user base. Their focus should be geared towards addressing problems related to sustainable development and improvement of city living.

Selected startup founders will be entitled to the following benefits:

- A structured schedule of impactful sessions including workshops, mentorship meetings, and investor events
- S\$40,000 equity-free investment
- Access to top quality mentors, investors, and founders including an

Entrepreneur in Residence, who will work closely with them throughout the programme

- Office space in the city centre of Singapore during the programme
- Benefits from partner companies including Google Cloud, Amazon Web Services, Hubspot and Stripe

Amra Naidoo, Co-Founder of Accelerating Asia said "Two-thirds of the world's population will be living in cities by 2050, according to the United Nations' recent report on global urbanisation in 2018. This creates many challenges in terms of sustainable development, especially for cities in the ASEAN region."

"The ASEAN Smart Cities Accelerator is a big step in the right direction toward making the vision of smart cities into reality," said Australia's High Commissioner to Singapore, His Excellency Bruce Gosper.

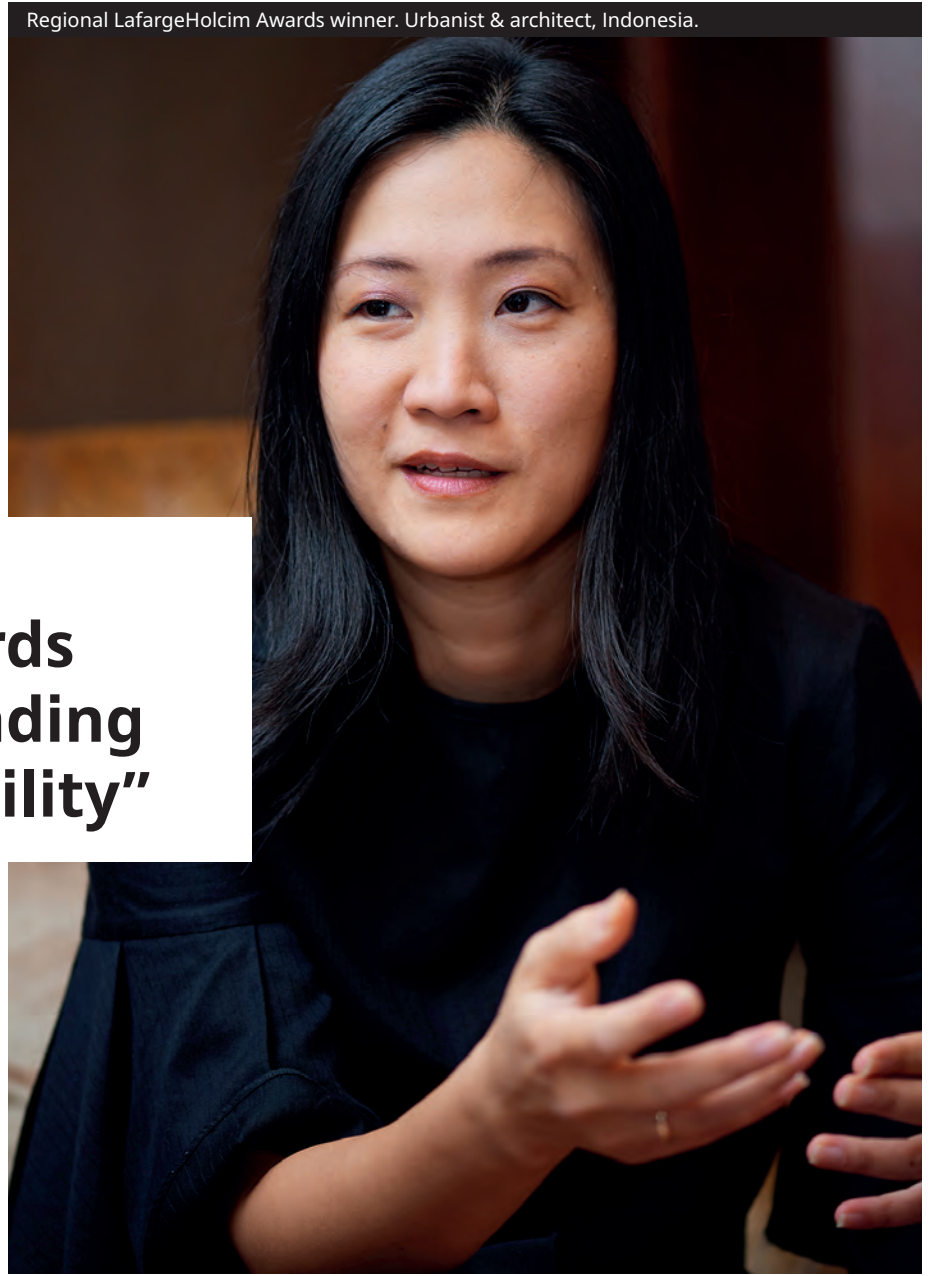
Celebrate 45 years with us!



Southeast Asia Building (SEAB), your leading source of publication for the architecture and interior design industry, completes 45 years in print in 2019.

SEAB has come a long way from being just a print magazine. Today, the magazine is available online from our website in a downloadable format to ensure that everyone gets a copy to read wherever they are and whenever they can. So our strength lies in both print and digital publications now. In addition, we are on social networking platforms like Facebook and Twitter to engage with our readers from all over the world and to make their editorial journey more interactive and enjoyable.

To celebrate its 45th anniversary, the team of SEAB invited its readers, advertisers, media partners, exhibition organisers, building suppliers and other industry professionals to say a few words about how the magazine has evolved over the years and served their needs. We deeply appreciate their thoughts and support.



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Dusit and CPN officially unveil Dusit Central Park at the heart of Bangkok's CBD

Bangkok, Thailand – Dusit Thani PCL and Central Pattana PCL have officially revealed the creation of their historic collaboration to create a new city landmark, and transform a major Silom–Rama4 intersection into the prime core of the CBD (Super Core CBD), linking four key areas of Bangkok with a one-of-a-kind, mixed-use project called 'Dusit Central Park'. Developed under the concept of 'Here for Bangkok', the project creates a new way to live the metropolis life, and brings Bangkok to another level as one of the world's best cities.

The project is expected to be completed in 2024. Worth a total of 36.7 billion baht and covering 440,000 square metres of prime real estate on the corner of Silom and Rama IV roads, the ambitious project is set to feature luxury residences, a state-of-the-art office tower, a high-end shopping complex with a large rooftop park, and a distinctive reimagining of Dusit Thani Bangkok hotel, Dusit's iconic flagship property, which served as a symbol of gracious Thai hospitality for 50 years.

Dusit Central Park is expected to open in three phases. The first phase will be the Dusit Thani Bangkok hotel. Designed to preserve the rich architectural and artistic heritage of the original hotel, the new 39-storey, 250-key Dusit Thani Bangkok will feature a modern-yet-familiar design



Photo: © Dusit Central Park

that incorporates significant elements from the original hotel. The second phase will be the Central Park Offices, whose 90,000 square metres are set to be recognised as a Professional Hub that will provide the ultimate in technology for city workers where connectivity is the priority, suitable for innovative start-ups and large companies, and Central Park Shopping Complex. The Final Phase of

the project will be the residences. Set over 69 storeys, this 389-key tower will be divided into two distinctive sections – Dusit Residences and Dusit Parkside – each managed by Dusit International in line with its unique brand of Thai-inspired gracious hospitality. Dusit Residences will comprise 159 luxurious, spacious units on the uppermost floors of the building, offering panoramic views of Lumpini Park.



Dr. Ho Nyok Yong
President of Singapore Green Building Council

“My warmest congratulations to Southeast Asia Building (SEAB) magazine for crossing the 45-year milestone! The publication has been a staple in the building and construction sector, providing keen insight and in-depth coverage of building trends, developments and innovations in the region and beyond. As the green building movement gained traction, SEAB’s editorial pieces on sustainable building and construction served to both educate the industry while also giving organisations like SGBC a platform to provide and circulate knowledge and expertise on green building subjects. I look forward to continued collaboration with SEAB to help advance the built environment towards greater sustainability.”

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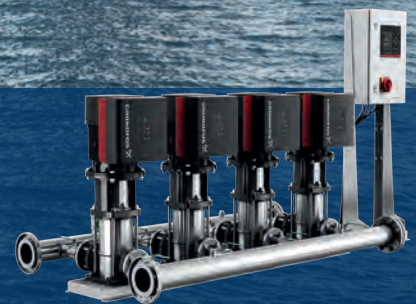
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St. Regis Hotels & Resorts announces opening of The St. Regis Hong Kong

Singapore – St. Regis Hotels & Resorts has announced the highly anticipated opening of The St. Regis Hong Kong, marking the debut of the iconic luxury brand in the destination. Founded more than century ago by John Jacob Astor IV with the opening of The St. Regis New York, St. Regis has since become a symbol of uncompromising refinement and bespoke service. As the ultra-luxurious global brand expands its portfolio of hotels, The St. Regis Hong Kong brings its legacy of butler service and signature rituals to the city.

The St. Regis Hong Kong is a jewel of architectural creativity, a curated mansion that celebrates cultural diversity and timeless elegance in Hong Kong as seen through the masterful eye of renowned interior designer André Fu, combining classic elements with modern sophistication. Signature design elements throughout the luxurious and inviting spaces incorporate artisanal details as a homage to the rich culture of the city. Opening in Wan Chai, a dynamic hub with both commercial and cultural aspects, Hong Kong's latest luxury hotel is just steps from the Hong Kong Convention and Exhibition Centre and Golden Bauhinia Square, and minutes by car to Admiralty, Lan Kwai Fong in Central, and Victoria Peak.



The St. Regis Hong Kong's Governor's Suite Bedroom. Photo: © The St. Regis Hong Kong



Saeed Al Abbar
Chairman of Emirates Green Building Council

“I would like to congratulate Southeast Asia Building (SEAB) magazine for reaching this milestone and I wish them many more years of success. Their dedication to covering the building and construction sectors from many parts of the world unites the industry and helps create a dialogue between stakeholders and enables the sharing of best practices. The building sector is evolving rapidly to adapt to new regulations that focus on sustainability to curb climate change and to cater to consumers who are more environmentally conscious. Having a media platform such as SEAB that brings the challenges and opportunities to the forefront has never been more important.”

Celebrate 45 years with us!

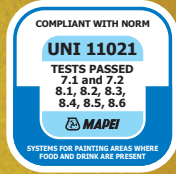


Ala'a Abdalla
Executive Director, Jordan Green Building Council



“SEAB magazine has been a valuable partner of Jordan GBC over the years. It is a magazine that acts as a window in which a glimpse of the future is exhibited through leading edge technology, latest industry news, and the sustainable future we are heading for. SEAB gives us an inside look for the remarkable success flourished by our world green leaders, advocating our vital role in raising awareness through our training programmes and setting multiple examples of economically viable solutions towards greening the built environment alongside our valuable green advocates.”

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Two Atkins-designed projects in Southeast Asia scoop landscape awards

Singapore – Atkins, a member of the SNC-Lavalin Group, has announced that two of its projects were under the spotlight at the Malaysia Landscape Architecture Awards (ILAM MAAA) 2019. The "Integrated Golf Resort Master Plan" in the Philippines won the ILAM MAAA Honour Award of "Landscape Analysis and Study Award" in the Professional Category, whilst the "Landmark 81" won the ILAM MAAA Honour award of "Landscape Design Awards" in the Professional Category.

The awards, organised by the Institute of Landscape Architecture Malaysia (ILAM) and endorsed by the International Federation of Landscape Architects (IFLA), aim to celebrate landscape architecture industry excellence and honour the best in landscape architecture from various aspects of the industry.

Christian Dierckxsens, Atkins' Senior Associate Director for Landscape in Asia Pacific, said: "These awards are a tremendous recognition to our studio's capability in creating and master planning unique and large-scale spaces throughout the region."

Another Atkins large-scale landscape masterplan project that won an award recently was the Gamuda Cove masterplan project. It scooped the Silver Award in the Landscape Planning & Master Planning category of the HKILA Landscape Award 2018.



Serena Yap
Built Environment Leader, Singapore, Aurecon

"As a Professional Engineer (Civil), I have found the publication very useful in understanding the trends and thinking of architects and designers across the different markets in Asia-Pacific. Whether it is a update of an iconic project or technology, the news is always presented in a concise and user-friendly manner that I can read quickly."

Celebrate 45 years with us!



Michael Grove
Sasaki Principal, Chair of Landscape Architecture, Civil Engineering, and Ecology

"SEAB is an incredible forum to inform, inspire, and encourage cities around the world to build a better future. As it has evolved from a print magazine to multi-channel hub for industry leaders across Asia Pacific region, the team at Sasaki has enjoyed the curated content on news, trends, projects, and in-depth interviews with design teams. We congratulate SEAB on reaching another significant milestone, and look forward to what's ahead."



thyssenkrupp equips iconic United Tower in Bahrain with elevators and escalators

Dubai, UAE – The builders of the spectacular United Tower in Bahrain have completed the installation of 16 elevators and two escalators in the country's sixth tallest building. With its unique twisted shape, the United Tower is conceived as a building with multiple uses – a vertical spiral city where people live, work, and relax. The particular characteristic of the United Tower is a 360-degree unobstructed view of Manama.

The United Tower is located in Bahrain Bay on the north-eastern shore of Bahrain's capital city Manama in a mixed neighbourhood of residential, commercial and retail spaces. The tower's developers intended to create an architecturally striking sculpture incorporating retail, offices, a hotel, and several restaurants. Moreover, it's an emblem of tomorrow's urban life: a city within a city.

Such a futuristic approach requires adequate mobility solutions that match the building's characteristic appeal. thyssenkrupp Elevator delivered elevators and escalators for an unparalleled transportation experience with quality and innovation playing a crucial role in every detail. The comfortable and efficient elevators are capable of a maximum speed up to 3.5 m/s.

The elevators and escalators for the United Tower are the biggest ever order for thyssenkrupp Elevator in Bahrain.

The United Tower is an excellent example of how communities live in the 21st century. The new urban lifestyle will create countless choices for 24-hour downtown destinations through combining multiple components in a truly unique concept.



Photo: © thyssenkrupp



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**Paul de Vroom,
Henk Bultstra
and Bert Karel Deuten**
Team Paul de Vroom + Sputnik

“SEAB is a broad magazine with recent projects from all over the world in the field of urban design, architecture and interior design. Team Paul de Vroom + Sputnik is proud that a number of our projects has been published in this inspiring magazine.”

CPG marks 20 years since corporatisation with new Singapore record



Photo: © CPG Corporation Pte Ltd

Singapore – CPG Corporation (CPG), one of Asia-Pacific leading multi-disciplinary infrastructure and building management consultancy, celebrated its 20 years since corporatisation on 25 April 2019 by setting a new record for the largest artwork made of fabric strips, using solely upcycled materials to promote sustainability.

Held at Singapore's Marina Barrage, the half-day event saw over 500 CPG staff, including architects, engineers, project managers and facility managers, come together to weave the silhouette of Singapore's noteworthy structures, the likes of Gardens by the Bay, the National Gallery of Singapore and Khoo Teck Puat Hospital, using upcycled fabric strips, wood and nails.



Photo: © CPG Corporation Pte Ltd

CPG has helped laid the foundation of Singapore for over 186 years, from its inception as Singapore's Public Works/ Convicts in 1833 to the formation of the Public Works Department in 1946, to its current identity as CPG Corporation, after undergoing corporatisation in 1999. During these 20 years as a corporatised entity, CPG has ventured into more than 25 countries over the world, with offices in China, Malaysia, Vietnam, Philippines, Macau, India and the United Arab Emirates.

As CPG's commemoration coincides with Singapore's bicentennial year, the idea of creating a unique artwork to recreate the silhouettes of several significant CPG projects that have and continues to define the Singapore cityscape was formed. 10 iconic projects across different typologies were selected, and they include:

1. National Gallery Singapore (2015)
2. Cavenagh Bridge (1869)

3. Khoo Teck Puat Hospital (2010)
4. Gardens by the Bay Supertree Grove and Conservatories (2012)
5. Changi Airport (Terminal 1 – 1981, Terminal 2 – 1990, Terminal 3 – 2008)
6. The Istana (1869)
7. The Rochester (2011)
8. Woodlands Checkpoint (1999)
9. Pan Pacific Serviced Suites, Orchard (2008)
10. Nanyang Technological University Learning Hub / The Hive (2014)

For over two hours, CPG management and employees took turns to weave the artwork, measuring 4.5 metres by 0.3 metres (on a 4.5 metres by 0.6 metres panel). Upon completion, CPG was awarded the Singapore Book of Records certificate for the – *Largest Artwork made of Fabric Strips*.

In support of the nation's push towards a year of zero waste, all materials used during the CPG20 event for the city silhouette artwork are from sustainable sources, such as used t-shirts, recycled yarns and fabrics, disused cotton and polyester, repurposed fabric textiles, as well as recycled industrial wood and iron nails. CPG staff were further encouraged to keep sustainability in mind through taking part in several hands-on upcycling activities, such as creating their own self-watering planters out of recycled plastics and paperboard pouches from old milk cartons.

The finished city silhouette art piece were displayed at Marina Barrage's Sustainable Singapore Gallery for two weeks during May, to educate visitors on the importance of sustainability in the built environment industry. The art piece will then be housed within CPG's Singapore headquarters as a reminder to staff to always keep sustainable principles in mind when designing and building future developments in Singapore and abroad.

Aurecon appoints new Managing Director to drive growth in Asia

Singapore – Global engineering and infrastructure advisory company Aurecon has announced the appointment of Stephane Asselin as its new Managing Director for Asia, effective 15 April 2019. The region is a key area of focus for Aurecon, as it targets rapid expansion to capitalise on the network of offices and clients it has developed in Asia over the past ten years.


"Aurecon is a company with a solid reputation and great brand built on innovation, safety, quality and growth, so this is a perfect opportunity for me," said Asselin. "Asia is a fast-paced region where there are many challenges and opportunities around sustainability, urbanisation, digital transformation and infrastructure. I believe Aurecon is well-placed to take a leading role in accelerating Asia's development, with the best mix of people, technology and eminence to drive real progress," added Asselin.

A senior and experienced commercial leader, Asselin has spent over half of his 25-year career living and working in Asia. He has a proven track record in delivering business outcomes and developing a strong talent base focused on executing strategy. Previously, he served at executive level with a range of engineering, environment and architectural consultancies, including as the Executive Vice President for Southeast Asia at AECOM. More recently, he held several senior advisory roles across Canada and Asia.

With a passion for the infrastructure, marine, water, energy and environmental sectors, Asselin has worked on projects across Asia as well as in North America, Europe and the Middle East. Some of his most recent experiences include helping Vietnam-based Atlas Industries in their expansion into the North American market, and with Canadian government-owned company Société du Plan Nord, where he led their infrastructure and environmental spending programmes.



Photo: © Aurecon

Celebrate 45 years with us! 



Leonard Lee
Regional Creative Officer and Regional Managing Director, Asia Pacific at Wilson Associates

"SEAB is an invaluable resource for the vibrant architecture and interior design community across the region. The publication continually provides key market insights and as a global interior design firm built and shaped by pioneering creatives, we are delighted to have SEAB as an essential platform for our ever-evolving industry. On behalf of Wilson Associates, I would like to congratulate the team at SEAB for the commendable evolution of their magazine."

Jason Sim
Managing Director, Playpoint (Singapore) Pte Ltd



"SEAB provides an excellent platform to showcase our projects and advertise our services. With a wide circulation in Southeast Asia, it is an excellent source of presence especially when Playpoint has offices in Singapore, Malaysia, Philippines, Vietnam and Indonesia in reaching our target audience."

MTD Group unveils exclusive residences by Studio Ashby in London

Hong Kong – MTD Group, a Malaysian infrastructure conglomerate and owner of major new mixed-use development One Crown Place in Central London, has unveiled Studio Ashby's designs for the interiors of nine exclusive apartments, designed by architects Kohn Pedersen Fox (KPF).

The Sophie Ashby Collection's residences – a combination of one, three bedroom and three bedroom duplexes – are inspired by the City of London's historic past and the interiors combine modern luxury with handcrafted tradition.

One Crown Place will deliver a total of 246 private apartments, including a fully restored Georgian terrace which will be transformed into a 42-room luxury boutique hotel – this will feature a destination restaurant alongside private members' club with exclusive access for residents. There is also 140,000 square feet of premium office space on site and retail units totaling 7,000 square feet. First residents will move into the completed development in early 2021.

During the planning, Studio Ashby worked with KPF's dynamic architecture style and floor plate, to preserve the wide vistas, keeping the façade free of built-in joinery. This has worked to strengthen the connection between the interior and exterior.

Studio Ashby's passion for beautiful objects is made apparent throughout her designs, using a carefully-curated selection of memorable touches showing traditional craftsmanship. To inject the apartments with a strong creative energy, Studio Ashby commissioned potters, painters, wood turners and marble splicers to create a unique environment that blends seamlessly with the outside environment.

The natural based palette is layered with muted Georgian



Photo: © Focus Studio

tones. Bolder colours come from the surrounding furniture and artwork, whilst the walls are adorned with a selection of art sourced from local galleries and artists to form a look that appears to have been established over time.

Studio Ashby used an array of different marbles throughout, exposed in their natural form. One of the stand-out moments of the scheme is the integration of crafted tactile finishes and practical kitchen design. The studio used pyrolave glazed volvic lava and pippy elm to adorn each kitchen island, fusing the raw and refined. In the centre of the master en suite, rich, Verde Antique marble has been set alongside muted polishes, plaster and natural Atlantic stone.

BCA confers awards on five professional engineers for their engineering feats

Singapore – Recognising their engineering feats which resulted in the safe implementation of their projects despite the challenges, five Professional Engineers were commended under the Building and Construction Authority's (BCA) Design and Engineering Safety Award 2019. Of the five, three Professional Engineers were given the Excellence Award, while the other two were accorded the Merit Award.

BCA Group Director (Building Engineering) and Commissioner of Building Control Engineer Chew Keat

Chuan said, "Professional Engineers play an important role in our built environment, ensuring the safety of our buildings while transforming the way we build Singapore. The Design and Engineering Safety Award honours Singapore's best engineering talents who have developed creative engineering solutions to overcome challenging architectural designs and site constraints to bring their projects to their safe completion. We hope that the recognition will inspire Singaporeans towards making an impact

on our country's development through a fulfilling and rewarding career in our built environment."

Excellence Award winner: Engineer Kam Mun Wai – Frasers Tower

Situated in heart of Singapore's Central Business District, Frasers Tower is an iconic and slender 38-storey high-rise tower with its sloping façade. Engineer Kam's challenges for this project were the variable ground conditions which affected how he had to design its structural foundation, the site's close

proximity to other buildings – including a 94-year-old national monument – in the dense city centre, and its architectural design with the façade sloped at a five-degree angle.

To protect the structural integrity of the adjacent buildings – including the monument, Engineer Kam devised a solution using earth retaining wall structures and a "top-down" construction method to minimise any ground movement during construction. In catering for the building's angled façade, Engineer Kam designed a complex but robust system of structural elements by analysing the forces and loads that were exerted to each element while keeping to its architectural design. He also designed the building's foundation such that it optimises the favourable ground conditions, reducing the amount of materials and resources needed for its construction.

Excellence Award winner: Engineer Aaron Foong – The Arc

The Arc is one of the Nanyang Technological University's newest buildings in its campus with smart classrooms and a 108-seat lecture theatre. Its architectural design resembles a piano or a harp (i.e., a curvilinear building geometry) and includes two basement levels of classrooms and workshops. Engineer Foong's challenge was to integrate its architecture with an existing 16-metre unbalanced sloping terrain, which contains existing network of telecommunication and electrical cables, and fire hydrant pipes that lead to other buildings, and its close proximity to many existing buildings.

To overcome these challenges, Engineer Foong used building information modelling (BIM) for The Arc's design and construction of its foundation, to detect and avoid clashes with the existing service pipes and cables. Engineer Foong's engineering solution allowed these existing underground services to co-exist with the Arc's piled foundation without costly and time-consuming works to divert them. Also, he modelled a three-dimensional sequence of the excavation works for the 16-metre unbalanced slope such that the builders could complete them safely and systematically.

Surbana Jurong to develop strategic plan for Mexico's Interoceanic Corridor and master plan two economic development areas



Surbana Jurong CEO International, Teo Eng Cheong (far left), and representatives from Mexico's state governments of Veracruz and Oaxaca, after signing the agreement. Photo: © Surbana Jurong

Singapore – Surbana Jurong, a global urban, industrial and infrastructure consulting firm based in Asia, will be developing a strategic plan for the Interoceanic Corridor and master planning two economic development areas in the states of Veracruz and Oaxaca in Mexico. The project was awarded by Mexico's state government of Veracruz and Oaxaca, marking a significant milestone as Surbana Jurong continues to expand its presence in the North American market.

The Interoceanic Corridor is 40 kilometres wide and 300 kilometres long and it will connect the port of Salinas Cruz on the Pacific coast to the port of Coatzacoalcos on the Atlantic. Strategically located with direct maritime links to China's Belt and Road Initiative's Eastern Asian terminal point and Western Europe end, the corridor will broaden market opportunities and drive economic growth for the southern states of Mexico by facilitating international trade and investment.

Surbana Jurong's scope of work will include a detailed review of the Interoceanic Corridor, including its broad socio-economic benefits to the region and potential growth industrial clusters. The strategic plan will comprise recommendations on market positioning and development directions to facilitate potential growth opportunities in jobs and industry sectors. It will also include proposals for utilities and services infrastructure development, and zoning plans to identify land use distribution along the corridor.

In addition, Surbana Jurong will develop the master plan for two economic development areas within the Interoceanic Corridor in the states of Veracruz and Oaxaca. The master plan will guide the physical development of the two industrial sites through planning of land use, infrastructure, utilities and transportation. It seeks to lay the foundations for economic growth, create a conducive environment for investment and provide a quality living environment for the people that live and work in it.

Enterprise Singapore facilitated this partnership between Surbana Jurong and the Mexican government, following the signing of a Memorandum of Understanding (MOU) with Mexico in 2016 (by then-IE Singapore). The MOU serves to help Singapore companies access opportunities in Mexico, in the areas of infrastructure and connectivity.

GEBT 2019 introduces new insights into the latest market trends

Hong Kong – The 2019 edition of Guangzhou Electrical Building Technology (GEBT) returns from 9–12 June at the China Import and Export Fair Complex in Guangzhou. Offering a comprehensive overview of state-of-the-art developments in electrical engineering, intelligent buildings, and smart homes, the fair's diverse event programme will shed light on the latest discussions in the industry. Held concurrently with Guangzhou International Lighting Exhibition (GILE), the two fairs are expected to welcome over 165,000 industry professionals.

Emerging trends in technology are being recognised by the Chinese government as recent development plans encourage the improvement and interconnectivity of infrastructures, alongside the practical implementation of big data, IoT, and AI. Currently, China's RMB 400-billion integrated intelligent building market is supported by its nation-wide network of over 5,000 industry-related businesses. The intelligent building sector's growth is being further spurred by new policies on technology and construction, not to mention the ongoing endeavours of the Belt and Road Initiative and the Greater Bay Area plan.

This year's exhibition welcomes the presence of renowned exhibitors from China and overseas. Some of the intelligent building and smart home brands at this year's show include: KNX, Zigbee, HDL, The Chint, Ezviz, Lonon, Anjubao, Weiyu, UIOT, ARW, TOT, Beleda, ZK-Link, Eastcato, Gubei, GEEKLINK, Rishun, YINCHAO, Sisiware, Hope, Video-star, Nedfon, Tender, PCI-SUNTEK, Tuya, AST, Lammin, Kejie, Mantunsci, Teibar, LITEPUTER,

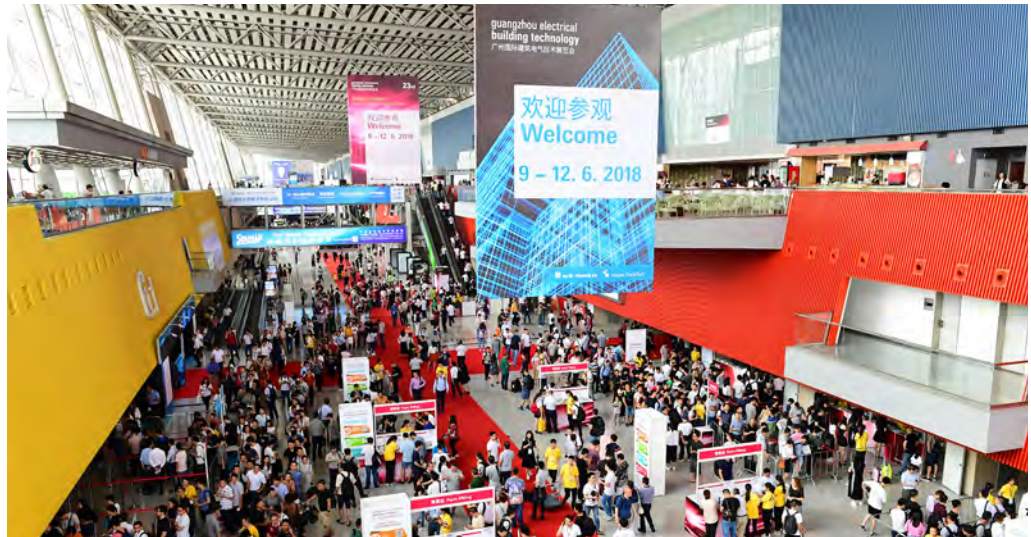


Photo: © Guangzhou Guangya Messe Frankfurt Co Ltd

Menred, DAJIN, ZhiHuiYun, Wanlang, Acematic, CHUGUAN, Lierda, BINTHEN, EaseMore, MenuiLife, WINTOM, Jilai, Homelan, Zhongdian, Taichuan, Shanutech, and Turning-right.

Led by digitalisation and improved integration, sectors such as intelligent building and smart homes are open to countless new opportunities, which can eventually reshape the building industry. GEBT is the ideal professional platform to reflect this changing environment through its wide-ranging fringe event programme and influential exhibitors. At the forefront of the sector, GEBT invites leading industry players each year to share their insights through various fringe events, forums, and conferences, discussing healthy building, smart design, AIoT, real estate, smart cities and other topics.

For more information, visit <https://guangzhou-electrical-building-technology.hk.messefrankfurt.com/guangzhou/en.html>.



Raymond Hoe
Director, Scott Brownrigg SEA Pte Ltd

“For me, innovation can never cease in our creative profession as architects and SEAB magazine plugs in well to provide well-documented references and hot-button perspectives not only to evoke, but also as a catalyst to reflect on my daily design process. In my 20 years of practice, it has grown to be one of the staple readings in our office instrumental for my teams to be continually navigated to the notable works of the other global practices. With this in mind, I congratulate SEAB and their supporting editorial team for their longstanding 45 years of dedicated journalism and I look forward to their onward contributions that would continue to fuel my professional evolution.”

Celebrate 45 years with us!



Sofitel to expand footprint in China

Singapore – Accor Greater China is pleased to announce the newest addition to the Sofitel brand family with the signing of Sofitel Xi'an South, slated for completion in the next few years. As Accor's modern luxury brand infused with French flair, the new Sofitel hotel is situated in the established commercial and high technology Qujiang District in south Xi'an.

Sofitel Xi'an South is part of Nanfeihong Plaza, a 300,000 square metres mixed-use complex that comprises shopping mall and commercial offices owned by Shaanxi Nanfeihong Industrial. Its location is unparalleled, as it is a mere 300 metres from Sanyao Station on Metro Line 2, 35 minutes' drive to Xi'an North Railway Station's high speed train, and 45 minutes' drive to Xi'an International Airport.

Sofitel Xi'an South is a new structure designed by award winning architect Aedas. It features 280 modern and stunning guestrooms and suites by interior design firm Cheng Chung Design (CCD). There are three world class restaurants to tempt guests with



Photo: © Nanfeihong

a culinary creations: an all-day dining establishment, a specialized Chinese restaurant and a specialty signature restaurant unique to Xi'an.

Its 800 square metres grand ballroom alongside six meeting rooms cater to a wide variety of functions and events

including the most beautiful weddings in Xi'an. In addition, guests can keep in shape by choosing the indoor swimming pool, gym or spa.

Rounding out the facilities is a business center and executive lounge as well as a lobby lounge for casual meetings.

Inaugural Malaysian Wood Expo 2019 aims to be a huge success

Kuala Lumpur, Malaysia – It is an inaugural event and the organisers are pulling out all the stops to make the Malaysian Wood Expo 2019 (MWE) a huge success. MWE will be held from 19-21 November 2019 at the Putra World Trade Centre in Kuala Lumpur, Malaysia. An international wood and woodworking machinery event, MWE aims to bring together international timber-based and woodworking machinery suppliers as well as buyers for trade and networking opportunities. MWE will also serve as a stepping stone for those who wish to expand their business wheelhouse into the ASEAN region including Malaysia, which is the second most competitive economy in the region.

MWE will be the place where "marketing meets sales" and where key decision makers secure potentially mega sales. Opportunities to generate business deals and network also await visitors of MWE.

Here's why you should exhibit at MWE:

- Showcase your newest products
- Meet key decision makers who are shaping the timber industry
- Trade with Southeast Asia's fastest growing economies
- Meet and connect with prospective customers
- Discover new developments in the industry

- Learn what your competitors are doing right
- Speak directly to your target audience
- Forge new and formidable business ventures
- Close deals

MWE is endorsed by the Ministry of Primary Industries Malaysia, the Malaysian Timber Industry Board (MTIB), Malaysian Wood Industries Association (MWIA), The Timber Exporters' Association of Malaysia (TEAM), The Malaysian Panel-Products Manufacturers' Association (MPMA), Malaysian Furniture Council (MFC), Malaysian Wood Moulding & Joinery Council (MWMJC), Association of Malaysian Bumiputra Timber and Furniture Entrepreneurs (PEKA) as well as international industry powerhouses such as the American Hardwood Export Council and French Timber. The expo is also supported by the Malaysia External Trade Development Corporation (MATRADE).

Jointly organised by the Malaysian Timber Council (MTC) and the publisher of wood magazines, Panels & Furniture Group, MWE 2019 will be the first true coming together of top exhibitors and buyers in Southeast Asia.

For more details, please contact info@malaysianwoodexpo.com.my.

AiIB approves USD280 million for first two projects in Sri Lanka

Beijing, China – The Asian Infrastructure Investment Bank's (AIIB) Board of Directors has approved its first two projects in Sri Lanka. A USD200-million loan will improve housing conditions for low-income communities in Colombo by constructing affordable housing and redeveloping land. Another loan for USD80 million will be used to reduce the risk and damage from landslides in Sri Lanka. Both projects will improve living conditions for those most in need in the country.

Investment in the Urban Regeneration Project will support the construction of about 5,500 housing units and other related infrastructure in Colombo. These housing units will be provided to individuals and families currently living in underserved settlements that are impacted by poor sewer and solid waste management systems and dilapidated housing structures.

"Providing affording housing will improve the quality of life for those in need in Colombo," said AIIB Vice President and Chief Investment Officer D.J. Pandian. "Smarter urban planning will also enable the city to attract more foreign investment and increase its potential as an economic hub for the country."

The investment to reduce landslide risk will support the design and



From left to right: Asian Infrastructure Investment Bank Vice President and Chief Investment Officer Dr. D.J. Pandian and Dr. Karunasena Kodituwakku, Ambassador Extraordinary and Plenipotentiary of Sri Lanka to China at the signing ceremony for AIIB's first two projects in Sri Lanka. Photo: © AIIB

construction of mitigation or protection measures where landslides have already occurred or are at risk of occurring. The investment will also support the review and strengthening of the policy and regulatory systems for landslide management at the local and national level.

"With global warming contributing to increased risk of both the number and intensity of climatic events in Sri

Lanka, landslide mitigation efforts are an important part of ensuring the sustainability of vital infrastructure," said AIIB Director General Supee Teravaninthorn. "Our involvement in this project will help us to develop capacity in disaster mitigation, so we can support other members in the planning and implementation of climate-resilient and major disaster prevention projects," added Supee.

Woods Bagot's winning scheme for Sydney's first luxury hotel in 20 years

Victoria, Australia – Global design firm Woods Bagot has won the architectural competition to design Sydney's first luxury city hotel in 20 years.

Woods Bagot's winning scheme for a luxury lifestyle hotel and office tower at 4-6 Bligh Street in central Sydney proposes an extraordinary urban experience from street level to crown.

Competition juror and City of Sydney's director of city planning, development and transport, Graham Jahn AM, said that of the six invited design entries, Woods Bagot's was determined by the jury to be the most convincing response to the competition's design, planning and commercial objectives.

"The Woods Bagot entry displayed a masterful architectural clarity and precision throughout the scheme," said Jahn. "The

design was the unanimous choice of the six-member jury," added Jahn.

Owned by Singapore-based investment group SC Capital Partners Group on behalf of its RECAP Fund series, the site is flanked by a mix of commercial and hotel buildings, shops, restaurants and cafes. The tower scheme for 4-6 Bligh Street is an integrated, elegant and coherent composition, creating two addresses for the hotel and commercial uses.

Carving a timeless and sculptural form within the congested skyline, Woods Bagot principal and Sydney design leader Ian Lomas described the tower as an elegantly legible anchor at the heart of the city. Overarchingly, the design is a genuinely bespoke response to its inner-city context.

"The building will be instantly recognisable from every angle, as the tower changes form and emphasis in response to context, orientation and internal function," said Mr Lomas.

Within the tower, each function is located in its optimum location. On the lower levels engaging with the street, a three-level 'urban room' with retail and separate entries for the hotel and offices welcomes Sydneysiders and guests alike. The lower ground level garden porte-cochere offers a discrete and unhurried arrival and departure. At street level a sweeping, shaded veranda leads to gardens, grand stairs and retail, and the upper level features a city brasserie and co-working.

A clubhouse with a pool and wellness, childcare, and co-working facilities tops the nine-level commercial office podium set within a garden. From here, the hotel rooms and suites rise up the tower, terminating with the public sky living room and reception on the fiftieth floor.

At the very top of the building, a rooftop restaurant, bar and garden offer panoramic views studded with the beauty of Sydney Harbour, the Heads and parks. Verdant and lush, the building is dedicated to incorporating nature throughout.



Photo: © Woods Bagot

RSP designs first Hindu Mandir Cultural Complex in the Middle East



Entrance to BAPS Hindu Mandir. Image: © RSP Architects Planners & Engineers

Singapore – A once in a millennium historical moment, the foundation stone laying ceremony of the first Hindu Mandir Cultural Complex in the Middle East took place at the Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha (BAPS) Hindu Mandir site in Abu Dhabi on 20 April 2019, in the presence of thousands from the Indian community and officials from India and the United Arab Emirates (UAE).

The foundation stone laying ceremony or 'Shilanyas Vidhi' is a sacred Hindu ritual where the first foundation stones are sanctified and fixed in the ground as the base of the Mandir. BAPS, along with Mandir Limited, had selected RSP Architects Planners & Engineers (RSP) as the lead consultant and designer, through an international architectural design competition. One of the most established architectural practices in Singapore

and the region, RSP was selected due to its visionary approach to creating a Hindu spiritual oasis in the UAE centred around a traditional crafted temple.

A significant symbol of global peace and harmony, the BAPS Hindu Mandir aims to facilitate interfaith dialogue, pluralism and universal human values, and serve the 3.3 million Indians residing in the UAE and millions of international tourists annually visiting the UAE. Constructed on a 13.5-acre land in Abu Dhabi that is located in close proximity to two major highways in the UAE, the Mandir will be highly accessible to visitors from all over the UAE.

The traditional stone Mandir will feature a multifaceted, multifunctional cultural and spiritual centre. As the largest place in the UAE for people of all faiths to come and experience the Hindu culture, the BAPS Hindu Mandir complex will serve as a centre of art, culture and values, and house facilities such as a visitors' centre, convention halls, a 1,500-seat dining hall, learning facilities and sports areas to meet the needs of the UAE community.

The magnificent BAPS Hindu Mandir will be a unique architectural feat, built according to ancient Hindu Sanskrit scriptures of architecture. It will be a marvel of seven spires representing the seven emirates in the UAE, and five ornate domes. Entirely sculpted from stone, the exterior of the Mandir will be made of pink sandstone from Rajasthan, India and the interior from white marble. Every corner and crevice will be intricately hand-carved by hundreds of artisans in India. Thousands of such stone pieces will be shipped to the UAE and assembled on site like a giant 3D jigsaw puzzle.

Bukit Sembawang Estates Limited gains international recognition for design of 8 St Thomas



Singapore – Bukit Sembawang Estates Limited (BSEL) has garnered another international design accolade for 8 St Thomas, its bespoke freehold luxury condominium in the heart of Orchard Road.

The luxury development won the Silver Award in the high-end residence category at the prestigious 5th China Real Estate Design Award (CREDAWARD) held in Pudong, Shanghai, on 26 and 27 April. In 2018, the development also took home the Gold Award at the New York City Design Awards.

Ms Jenny Ho, Assistant General Manager (Marketing) of BSEL said, "This win is a testament to our dedication to ensure that the timeless architectural design shines through in our work. We are truly heartened by the recognition from our peers in the industry, at home and abroad. For over 50 years, we have

been building quality homes for generations to enjoy. Today, we continue to strive for excellence and, through our properties, redefine modern urban living."

More than 1100 entries from over 300 companies competed at the CREDAWARD. Since its inception in 2014, the CREDAWARD has invited the chief architects and designers from the top 50 real estate companies in China. It acknowledges the most outstanding real estate projects around the world, taking into account developments' architectural, landscape and interior lighting design.

8 St Thomas comprises 250 exclusive units in two 35-storey towers. Situated on a lush land size of almost one hectare, the luxury development is replete with rich foliage and flowing landscapes.



Sheryl Ng (left) and Mical Soh
Marketing Department, Mapei Far East Pte Ltd

Celebrate 45 years with us!



"We express our heartiest congratulations to Southeast Asia Building (SEAB) on your 45th Anniversary. Mapei has worked together with SEAB for more than a decade. It is always a pleasure to work with you and your team of warm and highly talented individuals. SEAB strives to bring relevant information on projects and news from the region and the world to readers on a convenient platform. Always keeping up with the market, SEAB has progressed and ventured into digital platforms such as Facebook, Newsletters, Tradecards Global APP to reach out to readers. Through sheer hard work, perseverance and determination, SEAB is today a top circulating architecture magazine in the country. May SEAB reach greater heights and continued success for many years to come."

Wilson Associates debuts design for model villas at Huafa Hills

Singapore – Global interior architecture design firm Wilson Associates has announced the completion of two show villas at Huafa Hills. Located in the heart of the Chinese coastal commerce hub, Zhuhai, the recently completed model villas offer affluent buyers a glimpse of what to expect from Huafa Group's latest upscale residential development. Sales opened to the public in March 2019.

The smaller of the two villas embodies the notion of contemporary new Asian style with distinctly Oriental sensibility. The design team took special care to incorporate the essential feng shui elements—fire, water, earth, and metal—through private fireplaces, swimming pools, planters, timber clad walls with chic metal trims. Each subtle reference to the elements is complemented by generous architectural volumes, including high ceilings, open plan living and dining areas, and full height windows. This unique blend of Eastern and modern spatial principles resonates throughout the whole villa, taking luxurious living to a new level of harmony and comfort.

The larger of the two villas draws inspiration from traditional European influences, witnessed through a modern re-imagination of classic proportions and symmetry. The villa was designed to offer residents a series of feature spaces –including a whiskey lounge, wine cellar, private swimming pool, and a second-floor master suite complete with his and hers amenities and a private terrace. Each standout space is connected by a design language of scale and materiality that creates both visual impact and an invitation to linger and relax. The scheme for the villa captures a sense of timeless elegance, balancing the traditional and the modern through enduring materials and a deep attention to detail.

From concept to material selection, the Wilson Associates design team ensured that each home would offer future residents a contemporary, yet timeless experience within every refined space.



Living room of the smaller of the two Huafa Hills villas embodying the notion of contemporary new Asian style with distinct Oriental sensibility attached. Photo: © Huafa Group



Karen Chang
Senior Communications Manager, Asia Pacific, Accor

“SEAB offers great insight into the design and development in today’s architectural landscape. It’s great to see the various artistic interiors and design features of the hotels and resorts as part of its enriched content that defines the dynamic growth of the industry. I see the strong connection it holds on the various platforms to form a closer engagement with the readers like myself that makes it a little more enjoyable and I often look forward to reading its latest trends and development taking place in the industry around the world.”

Celebrate 45 years with us!



Gregorio Cappa
Managing Director, R+W Design and Brand Management



“Southeast Asia Building is a perfect platform for Italian companies specialized in building materials, where to show their most beautiful projects realised in Southeast Asia and to approach the market. Thanks Amita and all the SEAB team for the special attention and support to Italian design over 45 years. “

Total of 536 awards given out by BCA

Singapore – BCA gave out a total of 536 BCA Awards this year, including 395 Green Mark Awards. More than half of the Green Mark Awards achieved the higher-tiered BCA Green Mark Platinum and Gold^{PLUS} ratings. The BCA Awards 2019 ceremony held on 29 May, was graced by Minister of State for National Development and Manpower, Mr Zaqy Mohamad. More than 2,000 industry guests were present to celebrate the built environment sector's achievements.

The green building uptrend has continued over recent years and is indicative that more building owners and developers are recognising the benefits of going green from both environmental and economic perspectives.

Mr Hugh Lim, BCA CEO said, "Since Singapore's green building journey began in 2005, more than 109 million square metres of gross floor area has been greened. The joint efforts of BCA and our industry partners, the Singapore Green Building Council, developers and building owners, have increased awareness of the environmental, social and economic benefits of green buildings. More are coming on board to invest in higher-tier certifications. With this year's latest batch of Green Mark projects, Singapore has 'greened' close to 40 percent of the country's gross floor area, bringing us closer to our national target of greening 80 percent of all buildings by 2030."



BCA celebrated the first anniversary of the BuildSG movement at the BCA Awards 2019 with industry partners. Photo credit: Building and Construction Authority

Inaugural winners of the Green Mark for Super Low Energy Award

17 projects became the inaugural recipients of the Green Mark for Super Low Energy (GM SLE) Award by the Building and Construction Authority (BCA) this year. The projects, from 7 private and public sector developers, demonstrated best-in-class energy performance while maintaining cost effectiveness. The SLE programme sets a higher benchmark for best-in-class green buildings in Singapore.

The Nanyang Technological University, Singapore (NTU Singapore) sets a high standard among the winners in the GMSLE category, clinching the award for eight campus projects such as its sports hall The Wave, the School of Humanities and School of Social Sciences and the Wee Kim Wee School

of Communication and Information. NTU has implemented a variety of energy saving initiatives such as the campus-wide solar energy harvesting system that generates 5.9MWh/year and a 'Passive Displacement Cooling' system which uses convection to keep rooms cool. NTU will also progressively roll-out Smart Integrated Building Management systems that will see up to 10 per cent energy savings from air-conditioning units. NTU is Singapore's first recipient of the Green Mark Platinum^{STAR} Champion in 2016. With more than 50 Green Mark Platinum projects, NTU aims to upgrade the remaining buildings to Platinum by next year.

Another winner of the GM SLE Award is Samwoh Smart Hub, which will receive the Green Mark Platinum (Positive Energy) award. The project incorporates energy and water saving measures in its design, including double glazed windows on the north and south facades to harness natural daylight, and a windowless design on the east and west facades to reduce heat absorbed by the building. The project will also have on-site water recycling measures and leverage a smart Building Management System (BMS) and Facility Management to optimise utility management and consumption. Together with high-yield solar panels which will produce about 110% of the building's energy consumption, the Hub targets to save close to \$180,000 a year in overall utility bills. The project is also a recipient of the Green Buildings Innovation Cluster (GBIC) fund, in recognition of its efforts in adopting promising building energy-efficient technologies and solutions.



The Samwoh Smart Hub, a recipient of the Green Mark Platinum (Positive Energy) award at the BCA Awards 2019, will take the company's green journey to the next level. The design for the Samwoh Smart Hub began in 2017, and when completed in 2020, will allow the company to consolidate all its six current premises into a single location to support its long-term growth plan. Photo credit: Samwoh Corporation Pte Ltd

Green Mark Champion: Land Transport Authority (LTA)

The Land Transport Authority (LTA) has shown strong commitment towards environmental sustainability, with a

total of 14 Green Mark projects. In recognition of their efforts, LTA will be conferred the Green Mark Champion this year. This year, the Yio Chu Kang Bus Interchange will receive the Green Mark Gold^{PLUS} Award. The project expects to save an estimated 133,812kWh energy and 1,811 cubic metres of water every year. Among the features which will help the project achieve these are a green roof with drought-tolerant plants that keeps the interchange cool by reducing heat absorbed by the structure, water efficient fixtures rated Excellent under WELS, and an energy efficient air-conditioning system.

BCA-HPB Green Mark for Healthier Workplaces

14 offices received their awards under the new BCA-HPB Green Mark for Healthier Workplaces (GM HW) scheme. A joint effort between BCA and the Health Promotion Board (HPB), the scheme emphasises on the health, well-being and comfort of the occupants, in addition to office sustainability. Under GM HW, companies will have to consider factors such as space selection and office design, operation and maintenance, as well as occupant engagement and empowerment.

Keppel Corporation, Keppel Capital and Keppel Land, three entities under the Keppel Group, received the GM HW (Platinum) Award. An occupancy-based smart lighting control system helps the offices save energy with better control and automation. The office has also adopted a fully agile workplace concept with no assigned seating for staff, enabling more effective and dynamic space usage. The entities have shown encouraging efforts to promote active living in the office space with sit-stand desks and internal staircases within their premises, as well as promoting healthier eating through provision of discounts for nearby healthier food establishments.

DBS Bank Ltd. has clinched two GM HW (Platinum) Awards for its offices DBS Asia Central and DBS Asia Hub. In addition to managing lighting, energy and water efficiency, the office has an open and flexible layout with the option of an activity-based design that enables new ways of working for staff to interact more, foster innovation and drive collaboration. There is strong commitment to health and wellbeing of occupants from the senior management, who launched initiatives ranging from a variety of sports interest groups to online health coaching tools to encourage employees to adopt a healthier lifestyle.

BCA partners industry and universities to groom leaders to drive sustained transformation in the built environment sector

BCA has partnered the built environment industry and academia to develop a new iBuildSG Leadership Engagement and Development (LEAD) framework to support leadership development within the sector. BCA is also working with the industry to pilot a new, voluntary Maintainable Design Appraisal System (or MiDAS in short) from May this year. These were also announced at the BCA Awards 2019 ceremony.

There will be three leadership building platforms within the framework, anchored by two bespoke structured programmes, LEAD Horizon Programme and LEAD Milestone Programme. BCA will partner the Singapore Management University (SMU) as the anchor institution for both the Horizon and Milestone Training Programmes. SMU's strengths in industry collaboration and

management skills will enhance the participants' leadership competencies in these areas. In addition, BCA will collaborate with the Singapore University of Technology and Design (SUTD) on a technical track within the LEAD Horizon Programme to run an innovation bootcamp. To complement the above, a third platform, Insights@LEAD comprising a series of events and initiatives will further thought leadership and provide opportunities for co-creation through alignment and collaboration across the LEAD community.

"SMU is delighted to partner BCA to launch two bespoke structured training programmes under the new iBuildSG LEAD framework. These Programmes aimed at the middle level leaders and enterprise leaders in the Built Environment sector represent a fusion of experiential and interactive learning, facilitated by experienced SMU faculty and industry leaders. We are confident that our programme participants will value the many real-life case studies, practice-driven approach to teaching and networking opportunities. With expertise in delivering tailored and industry-specific programmes, SMU's Executive Development presents a robust offering that will well address the needs of leaders and senior executives who are tackling today's challenges," said SMU President, Professor Lily Kong.

"SUTD is pleased to promote leadership in innovation by design in partnership with BCA through the new iBuildSG LEAD Framework. Leveraging SUTD's unique strength in design innovation and active learning pedagogy, we look forward to equipping the participants with essential knowledge and skills to take on tomorrow's challenges and stay future-ready. The training programme designed for BCA can be incorporated into SUTD Academy's ModularMaster programmes, which can in turn lead to Master's programmes, thereby providing a pathway for participants to up-skill themselves as desired," said Professor Chong Tow Chong, SUTD President.



(L-R) Prof Lily Kong, SMU President; Mr Hugh Lim, BCA CEO and Prof Pey Kin Leong, Associate Provost, SUTD at the Signing Ceremony for iBuildSG LEAD Programmes. The ceremony was witnessed by (Back row L-R) Mr Cheng Hsing Yao, representing Construction Industry Joint Committee; Mr Zainal Sapari, representing National Trade Union Congress; Mr Lee Fook Sun, BCA Chairman and Ms Chelvin Loh, representing SkillsFuture Singapore. Photo credit: Building and Construction Authority

IWG appoints Samit Chopra as Executive Vice President for Enterprise and Sales

Singapore – Leading flexible workspace provider, IWG, has announced the appointment of Mr Samit Chopra as Executive Vice President for Enterprise and Sales with immediate effect. Samit has over 20 years of experience in the real estate industry with senior leadership roles in Jones Lang LaSalle (JLL).

Based in Singapore and as head of the Enterprise business function, Samit will be responsible for aligning IWG's multi-brand flexible solutions with the evolving portfolio needs of the company's Enterprise and Corporate clients across the Middle East & Asia Pacific region. In addition, he will be overseeing the sales platforms in Australia, New Zealand, China, Singapore and Hong Kong, driving the overall sales strategy to achieve top-line growth across the portfolio.

Samit joins IWG after over 20 years with the global real estate firm, JLL, where he served as International Director – Head of Integrated Portfolio Services for Europe, the Middle East and Africa (EMEA), based in London. During his time at JLL, Samit has held several leadership roles focusing on expanding JLL's international business across Americas, Europe, Middle East, Africa and Asia Pacific regions, leading high-performance teams in winning and overseeing large, complex international projects for key clients such as Amazon, Apple, Qualcomm, Broadcom, MetLife, Cisco, Microsoft, Deutsche Bank and UHG.

Prior to his role at JLL London, Samit held positions at JLL Palo Alto & New York, USA and JLL Delhi & Mumbai, India. Samit is a Harvard University alumnus through an advanced management program in real estate, has an MBA from the Institute of Management Technology, India and also a certificate in data analytics from The Wharton School.



Samit Chopra has been appointed as Executive Vice President for Enterprise and Sales at IWG. He joins IWG after over 20 years with global real estate firm, JLL. Photo: © IWG



Jill Aithnie S. Ang
Managing Director, Worldbex Services International

“On behalf of Worldbex Services International, my heartfelt greetings to all who are part of the Southeast Asia Building (SEAB)! We would like to congratulate you for 45 successful years of being a platform in uniting the building and construction industry all over Southeast Asia. Also, we are grateful for the support that SEAB has given WSI throughout the years. As SEAB has come a long way from print to online, it has always been WSI's privilege to support the publication's goals by providing the current trends and insights from industry leaders. We will continuously work hand-in-hand with you in whatever way we can for the benefit of the building and construction industry. We hope that we can further our partnership through continuous collaborations. We wish you all the best in the years ahead!”

Celebrate 45 years with us!



Yap Boh Tiong
Group Chairman of Mileage Communications

“Since Mileage's inception 27 years ago, I have been a regular reader of SEAB. It provides useful insights of the building industry in this region. Over the years, it has brought readers up-to-date on green buildings, energy and water saving features, and designs of buildings that embrace efficiency, safety and harmonious living. I look forward to more inspiring articles and I wish the publication many more years of success.”



Kohn Pedersen Fox completes ultra-luxury Rosewood Hotel in Hong Kong

New York, New York, USA – Kohn Pedersen Fox Associates (KPF) has announced the completion of the Rosewood Hotel in Hong Kong. The Rosewood Tower anchors the redeveloped Victoria Dockside, Hong Kong's new creative and cultural hub, also designed by KPF, alongside Victoria Harbor's waterfront at the tip of Kowloon Peninsula. Designed to celebrate the city's impressive verticality, the 65-storey tower signals Hong Kong's evolution from a centre of commerce to a cultural capital, and offers a distinguished new addition to the city's skyline.

Comprising short-stay hotel accommodations, serviced residences, and boutique office space, the 256-metre-tall Rosewood Tower, with interiors by Tony Chi, announces from afar the reinvigorated Victoria Dockside waterfront neighbourhood. The landmark tower's stepped, irregular massing expresses its multiple programmatic divisions while maintaining a cohesive exterior language. Stone piers communicate the tower's verticality, while panoramic glass insets offer unobstructed views of Victoria Harbor, Hong Kong, and Kowloon Peak.

From other neighbourhoods in Hong Kong, the tower's disposition shifts depending on one's vantage point, contributing to a dynamic skyline experience. Multiple terraces are located at various levels of the building, providing outdoor space the hotel's amenities, event spaces, and guest suites.

The completion of the Rosewood Hong Kong adds to KPF's



Photo: © New World Development

growing portfolio of hospitality work around the world. Other projects include the nearly complete Rosewood Bangkok, a geometric tower in the city's central business district, as well as projects currently under construction such as The Royal Atlantis, a new icon on Dubai's waterfront, the Qiantan Center, a mixed-use tower with a large hotel program in Shanghai, and One Crown Place, a complex renovation and new construction project in London.



Patrick Lee (left) and Sam
Directors of CT-Art Creation Pte Ltd

"CT-Art Creation Pte Ltd is a Specialist on quality Playgrounds and Outdoor Amenities. We are pleased to have SEAB as our main communications partner for more than 20 years. We feel that our message and news contributions have a good reach to our clients and different levels in the industry."

Celebrate 45 years with us!



Rowan Tan

Senior Vice President ASEAN, AS APAC, dormakaba Singapore Pte Ltd



"I have been advertising in Southeast Asia Building (SEAB) magazine in my present company, and the previous companies I worked for, for more than 30 years. I have seen the publication grow from strength to strength, and it is, in my humble opinion, one of the best architectural and interior-design publications in circulation in this region today. I would like to congratulate the SEAB Team for the excellent work they have been doing in keeping the magazine current with the changing industry trends, and to wish them every success in the many years to come."

Ceramiche Caesar strengthens its presence in America

Fiorano Modenese, Italy – In the heart of Tennessee, Ceramiche Caesar reconfirms its presence on the American market with the inauguration of its new showroom in the urban area of Brentwood. The cosmopolitan tendency that is part of Caesar DNA has long characterised Caesar Ceramics USA that, founded in 1997, has always strived to respond quickly and efficiently to the needs of the local market.

The opening of this new base means another step forward that translates into a strengthening of staff, in creating a dedicated product and improving customer service, on a market that has become fertile ground for the promotion

of 'Made in Italy' know-how. Italian design is a recognised characteristic and also means added value for the 'Made in the USA', under the auspices of which the main collections destined for American soil are produced.

An important investment then, and a project backed by the whole team, one that allows Caesar, a high-quality Italian ceramics firm, to have a direct presence in the USA. Here, all the value of porcelain stoneware is at the service of a community of international professionals, part of a plan to consolidate and further promote Italian and American ceramic solutions across the globe.

The structure extends across a total area of roughly 500 square metres innovative offices will accommodate staff dedicated to the US divisions of marketing, customer care and sales, while the showroom becomes an effective shop window, welcoming guests and visitors and providing direct access to the various ceramics collections. Caesar porcelain stoneware does not just play a starring role in the traditional areas of flooring and cladding; the new showroom also demonstrates how the ceramic material takes on a "new skin" to be used in furniture elements such as reception desks, different shaped tables, and benches and countertops, highlighting the versatility of Caesar branded products when it comes to their aesthetics, functionality and technology.

The new base also stands out for its dedicated conference and meeting area, where designers and professionals can come together to share ideas and discuss new materials, technical issues and the development of new trends.



Oma and Laboratorio Permanente win competition for Scalo Farini In Milan

Milan, Italy – Agenti Climatici (Climatic Agents), the masterplan by OMA's Ippolito Pestellini Laparelli and Reinier de Graaf, co-designed with Laboratorio Permanente, has won the Concorso Farini competition for the redevelopment of the scalo Farini and San Cristoforo sites, two disused railway yards North and South of the periphery of Milan.

The Agenti Climatici proposal designates the Scalo Farini site as a green zone and the San Cristoforo site as a blue zone. Both work as ecological filters: the green zone contains a vast park which cools hot winds coming from the south-west, purifying the air of toxic particles; the large basin in the blue zone cleans the groundwater and creates a landscape for both humans and animals. These two new zones regenerate the ecology of Milan by providing clean air and water, addressing climate change and pollution on a metropolitan scale.



Photo: © OMA & Laboratorio Permanente

In this new value system, public space – including water, greenery and bridges – is fixed, and buildings are residual and uncertain. In Farini, the scale of developments is contingent on the city's future economic developments, creating an adaptable and resilient spatial framework that can respond to

the shocks of national politics and the global economy.

The competition was organised by public transport companies Ferrovie dello Stato, FS Sistemi Urbani S.r.l. and RFI, in collaboration with the municipality of Milan, the Lombardy region and developer Coima SGR. Other finalists

in the competition included Baukuh, Arup, Grimshaw and Kengo Kuma and Associates Europe. OMA's team consisted of Laboratorio Permanente (IT), Vogt Landscape Architects (CN), Philippe Rahm Architectes (FR), Net Engineering (IT), Ezio Micelli (IT), Arcadis Italia (IT), Temporiuso.net (IT) and Luca Cozzani (IT).

Adjaye Associates wins India's new Kiran Nadar Museum of Art & Kiran Nadar Cultural Center International design competition

London, UK – On 9 May 2019, Mrs Kiran Nadar and Sir David Adjaye OBE RA announced at the Venice Biennale that Adjaye Associates has won the Kiran Nadar Museum of Art & Kiran Nadar Cultural Center International Design Competition.

The global search to find an outstanding team to design a contemporary art museum combined with a cultural center for dance, music and creative education was led by competition specialists Malcolm Reading Consultants.

This new destination, to be known as the Kiran Nadar Museum of Art & Cultural Center (KNMACC), has a joint vision focused on education, young people and the power of creativity.

The new building, in New Delhi NCR, will enable KNMA, which has a world-class collection of Indian Modern and contemporary art, to build on its remarkable success to date.

The competition launched in the second half of 2018 when a long-list of 47 leading studios from 15 countries was invited to participate in the contest's first stage. At stage two, a shortlist of five practices was asked to create concept designs. They were (in alphabetical order):

- Adjaye Associates (UK)
- Ennead Architects (US)
- Selldorf Architects (US)
- Snøhetta (Norway)
- Thomas Phifer and Partners (US)

Adjaye Associates was the unanimous choice of the international jury. The team's 'veil of triangles' design, a



Kiran Nadar. Photo: © Kiran Nadar Museum of Art

reference to the sacred geometries of trees and mountains, was praised for being both elegant and iconic; in the words of the jury, it was 'a visually and emotionally engaging building that was alive, dancing and timeless'.

Kiran Nadar, Chair, Kiran Nadar Museum of Art and Cultural Center, said: "This Center will be a cultural powerhouse open to all, furthering our vision of making art accessible to everyone. It is rooted in the conviction that we need to make protected spaces for the life of the imagination. Just as literacy and education programmes open minds, the arts and culture experience stimulates new ways of thinking. "Sir David's design incorporates a series of thresholds to art and performance. It creates a cinematic experience for visitors, who encounter artworks and artists as they move from the street through the atrium and up through the building to the lush rooftop



Sir David Adjaye. Photo: © Ed Reeve

garden. "This new cultural powerhouse is envisaged as a first for India in combining an outstanding contemporary art museum," added Kiran.

Sir David Adjaye OBE RA is a Ghanaian-born British architect, whose most famous building is the award-winning Smithsonian Institution's National Museum of African American History and Culture in Washington, D.C. In 2018, Sir David chaired the Stirling Prize jury, Britain's highest award for excellence in architecture.

Adjaye Associates will partner with local architect S. Ghosh & Associates and the team is supported by engineers WSP; theatre and acoustic design consultancy Charcoalblue; lighting designers Studio Fractal; and management support consultants Plan A.

Each of the five shortlisted practices received an honorarium of £25,000 plus expenses for travel to India.

World Green Building Council to shine light on building lifecycle as campaign focus for World Green Building Week 2019

London, UK – The World Green Building Council (WorldGBC) will use the 10th annual World Green Building Week (23–29 September 2019) to focus on end-to-end carbon emissions created across the building and construction industry, highlighting the need for the sustainable production, design, build, use, deconstruction and reuse of buildings and their materials.

Today, buildings and construction together account for 36 percent of global final energy use and 39 percent of energy-related carbon dioxide (CO₂) emissions when upstream power generation is included.

Operational emissions from buildings account for 28 percent overall, while the remaining 11 percent are attributed to embodied carbon emissions, which refers to carbon that is released during material manufacturing and the construction and demolition process.

The issue of addressing embodied carbon emissions is becoming increasingly important to the building and construction industry as major organisations look to collectively achieve net zero carbon along the entire lifecycle of a building. A detailed report put together by WorldGBC will outline the pressing issues around embodied carbon in the industry, presenting a vision for a net zero carbon construction future and a call to action to radically transform processes right along the planning and construction supply chain.

The report will help to raise awareness of this vital issue and will highlight examples of leadership and best practice from across the sector. In the report, WorldGBC will call for urgent action, recommending specific steps that business, government and civil society can take to help shape a net zero carbon future for the whole lifecycle of all buildings.

The report will be released during World Green Building Week in September 2019. The focus for this year's World Green Building Week campaign dovetails with the issue of air



Cristina Gamboa

pollution, which is the theme of this year's World Environment Day, which took place on 5 June 2019. Green building is one key solution to improve air quality in the built environment. The energy used in material manufacture, construction and operation of buildings must come from clean, renewable sources of energy and not from burning carbon-emitting fossil fuels, which exacerbate global warming, pollute the air and damage human health.

On 5 June, WorldGBC Chair, Lisa Bate, spoke at the UN Environment's World Environment Day event in New York on a panel about innovative solutions to reduce air pollution in the building sector. She used the UN Environment platform to formally launch this year's campaign, Building Life.

Cristina Gamboa, CEO, World Green Building Council said: "This year's focus for World Green Building Week on the full lifecycle of buildings is key to promote innovation and accelerate the abatement of emissions from buildings, which stand at 39 percent of total emissions worldwide. The construction industry will find in the campaign ways to address the carbon footprint of buildings and identify how to accelerate market transformation. Only by having an end to end understanding can our green building movement truly help contribute to the decarbonisation of the built environment. We look forward to engaging with our Green Building Councils and their members in lively and exciting ways that can genuinely make a difference to awareness around this pressing issue beyond our own industry."

WorldGBC will be looking to its global network of green building and construction industry experts to act as ambassadors throughout the week to promote action on total emissions and the whole life cycle of buildings. This will take the form of proactive media opportunities, hosting events, publishing reports, thought leadership articles and manifestos, making net zero carbon building commitments, and promoting the week on social media platforms using the hashtag #buildinglife.



Bosco Verticale, a green building in Milan.

Luxurious condominium MIRA with a twisting tower tops out

San Francisco, California, USA – Tishman Speyer is celebrating the topping out of MIRA, its newest San Francisco community of luxury condominium residences. Construction of the 400-foot tower began in mid-2017 and has progressed steadily since, with occupancy slated for late 2019. With architecture and interiors by Studio Gang's Jeanne Gang, an award-winning architect and member of the 2019 TIME 100 list, MIRA's distinctive, dynamic design features large bay windows twisting up the façade to offer sweeping views of San Francisco Bay, the Bay Bridge, and the city skyline. The distinctive façade's installation has been underway for the last seven months and now clearly shows off the spiraling design with which MIRA will punctuate San Francisco's skyline.

When completed, MIRA's bright, modern, and spacious one-, two- and three-bedroom condominiums and townhouses will offer sweeping, expansive views of the city and the Bay through large bay windows. Located one block from the Embarcadero, the community will feature amenities such as a courtyard, rooftop deck, private dining and lounge, a Jay Wright-designed fitness center, children's playroom, conference room, dog washing station, valet parking for 340 cars with electric vehicle charging stations, parking for 150 bicycles, and over 10,000 square feet of retail at street level. Inside, bay windows in every residence offer sweeping views and create a dynamic façade that will transform the neighborhood with Studio Gang's groundbreaking, forward-thinking architecture.

Located in the emerging Transbay neighbourhood where SoMa meets the Embarcadero, MIRA will offer convenient access to the waterfront, the new Salesforce Park and Transbay Transit Terminal, and a wide array of retailers, nightlife, restaurants, transportation options, and sports and entertainment venues. The MIRA community will contribute to the dynamic neighborhood created by Tishman Speyer's nearby Infinity and LUMINA projects. The site was previously known as Block One of the Transbay Redevelopment Plan.

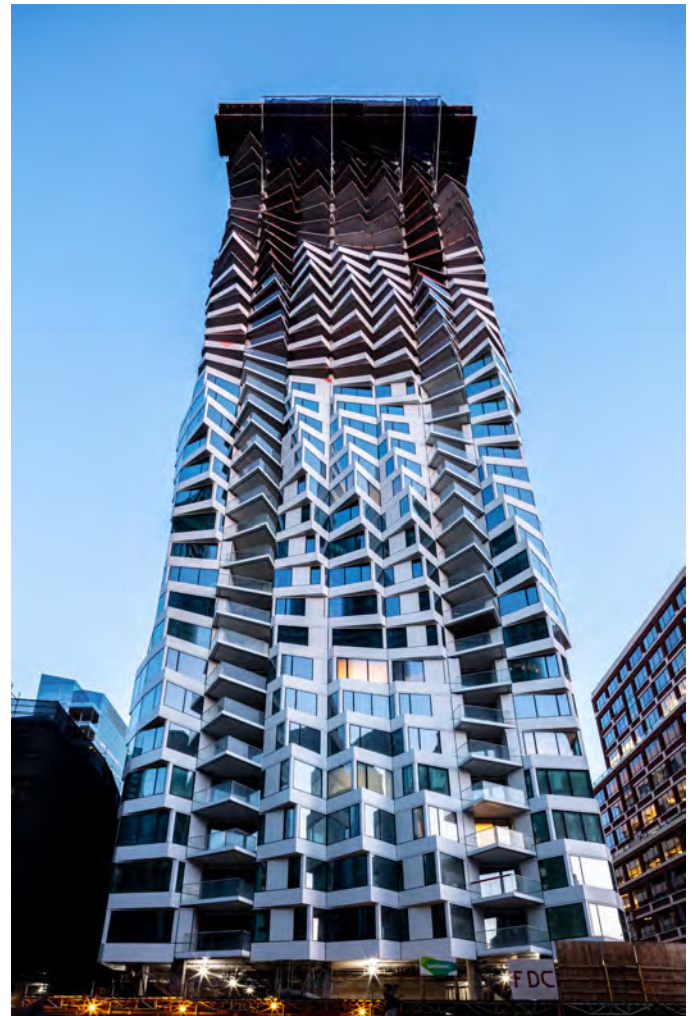


Photo: © Jason O'Rear, courtesy of Studio Gang



Marc Zutter

Head of Communications, LafargeHolcim Foundation for Sustainable Construction

“Congratulations to your 45th anniversary! What a positive journey with Southeast Asia Building (SEAB) it has been for us, the LafargeHolcim Foundation for Sustainable Construction. Based in Switzerland, we reach out to a global global audience to inspire, promote, and award sustainable responses to the built environment. SEAB is a trusted and effective partner to address more than 110,000 building professionals across the Asia Pacific region. We thank the editorial team of SEAB for their support of sustainable construction. Their enthusiasm has strengthened our message of the important role that architecture and engineering have in creating a more sustainable built world. It has been great to experience the evolution of SEAB from a print to digital, including the establishment of a social media network with vivid engagement and reach far beyond Southeast Asia. We look forward to many more years of cooperation! ”

Celebrate 45 years with us!



Miysis pays tribute Notre Dame de Paris with a glass roof

Juprelle, Belgium – Miysis Studio 3D wants to pay tribute to Notre Dame de Paris with a respectful reconstruction of an edifice that has endured for generations. Miysis wants its proposition to evoke both its traditional structure whilst also taking on the ambitious challenge of developing a new vision that is more deeply rooted in our present. So that Notre Dame may not only recover her original beauty and continue her journey through time but also remain a striking and powerful symbol for all future generations to come.

Miysis wants to preserve the dimensions and volumes of the original roof. They have chosen a discreet and sober exterior appearance that does not distort the silhouette of the building. The setting up of a canopy taking up the rhythm and position of the original frame seemed interesting to the architect. It takes the form of stained glass, while conferring a very simple aesthetic, close to the original roof.

The team at Miysis has designed a new space accessible to visitors. They could walk quietly through the volume of the roof that Notre Dame intimates called "The Forest". On the ground, the floor is reminiscent of the structure that has now disappeared. This same structure, some of which were reconstructed in the same way and took their symbolic place at four ends of the roof.

In the centre of the building there is an arrow. Reconstructed identical, by the best craftsmen, dressed in more modern materials and whose appearance is undeniably faithful to the original. An arrow that found the colossus that accompanied her for so many years and was miraculously saved. This arrow, iconic, will have regained its place and will not be illuminated highlighted as never before in its history.



Photos: © Miysis Studio 3D

Entries now open for the 2019 SBID International Design Awards with a new responsive website, new venue and plans for SBID's 10th anniversary celebrations

London, UK – Not only have organisers built a brand-new responsive website, they have relocated the Awards to a new location and have revealed plans to celebrate SBID (Society of British and International Design)'s 10th anniversary at the awards in October 2019.

The new website has been recreated to not only manage anticipated additional entries, but with improved functionality and enriched responsive content, entrants will be able to seamlessly submit their projects with ease from any device. Considered as one of the most prestigious



accolades in interior design by the best in the industry, the SBID Awards bring together the world's finest interior design

projects across a range of categories. From hospitality and office design to healthcare and residential, the awards currently represent designers from over 40 countries worldwide, across each continent.

Consistent in its quest to recognise, reward and celebrate global interior design, this year's edition is intended to be bigger and better than ever, with a captivating ceremony to celebrate SBID's 10th anniversary at the event's new location; Grosvenor House, Park Lane in London.

Last year saw one of the most globally representative editions to date, with more entries than ever before and an astounding 225,000 unique public votes; industry talent was represented from 46 countries across the globe, with winning projects from the UK, South Africa, China, New Zealand, Canada and UAE.

This year brings brand new additions to the esteemed panel of judges including Executive Director, Global Experiential Design and Production at MAC Cosmetics; Associate Curator & Associate Director, Curatorial Affairs, Abu Dhabi Project at Solomon R. Guggenheim Museum and Foundation; Construction

Director at Nike and Manager for Interior Design at Universal Orlando Resort.

Unlike many industry awards, the SBID Design Awards are awarded purely on the quality of the project. Each entry undergoes an exclusive two-tier judging process by panels of leading industry experts for both technical content and aesthetic creativity. Evaluating essential elements such as brief compliance, budget, health & safety and fit-for-purpose design. This is then finalised by a third-tier online public vote, where all finalists' designs are judged by the public for their favourite projects.

The new website was launched on

May 1st 2019. Interior designers and architects are invited to submit their projects between now and the 5pm on Monday 8th July 2019. SBID accredited designers can exclusively enter up to 5 projects free* as part of their membership (*admin fee applies). The finalists will be announced on 16 August 2019 and once announced, the public will be invited to cast their vote for their favourite projects online, which will contribute to the overall scores. Winners will then be announced at the ceremony in October 2019.

For more information, visit www.sbiawards.com.

Heatherwick Studio reveals new residential project in Singapore

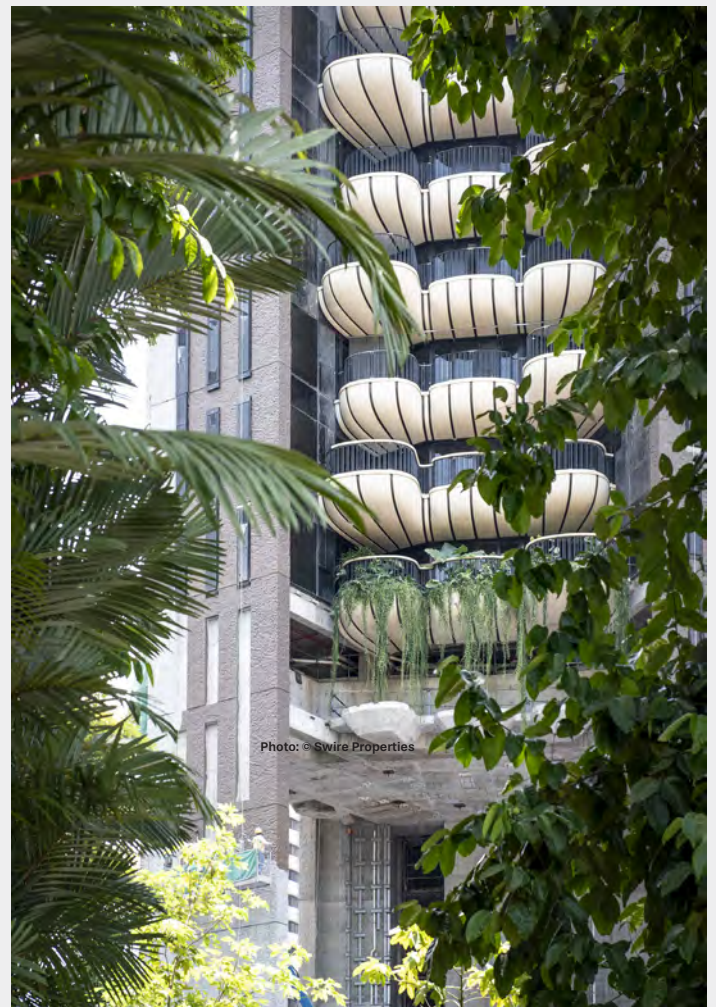
London, UK – Heatherwick Studio has unveiled designs for a new residential project in Singapore. Located in the historic Orchard Road Neighbourhood of Singapore and commissioned by Swire Properties, the 104.5 metre building – the first residential project in Asia by the studio – offers a unique response to its location that entwines nature with city apartment living.

'EDEN' is designed to resemble a spine blade: simple vertical rectilinear plains with slim windows form the blade with generous garden balconies situated in between. This approach grants privacy for each of the twenty apartments and allows for a generous central living space that forms the heart of each residence. The unconventional concrete walls are moulded with a topographical map of Singapore's terrain, which has been abstracted to create a unique three-dimensional texture.

The focus on creating a garden for each apartment is a response to the disconnection between high-rise apartments and the lush greenery at street level in Singapore. Responding to Lee Kuan Yew's original vision of Singapore as a 'city in a garden', the design extends the landscape of Singapore upwards through the building with a series of hanging gardens, connecting the interior living space with the outdoors, providing views of Singapore's green landscape.

"Like most global cities, Singapore's skyline is filled with angular steel and glass towers. With Swire Properties we wanted to create something distinctive that represents Singapore as a city in a garden, and recreate the verdant backyard access once ubiquitous across homes here. Instead of glass-clad edifices with token balconies, each home within 'EDEN' will have a lush garden right at the doorstep with organic and generous living spaces achieved by breaking up the traditional boxy floorplate," commented Thomas Heatherwick, Founder of Heatherwick Studio.

The studio's first project in Singapore, the Learning Hub (now known as The Hive) at Nanyang Technological University, opened in February 2015. In addition to the residential project



for Swire Properties, the studio is also currently working on a new terminal for Singapore's Changi Airport with KPF.

Boonserm Premthada wins 2019 Royal Academy Dorfman Award for Architecture



Boonserm Premthada,
Elephant World
Observation Tower.
Photo by Spaceshift
Studio.

London, UK – The Royal Academy of Arts announced that Boonserm Premthada, an architect from Thailand and founder of the architectural practice Bangkok Project Studio, has been awarded the 2019 Royal Academy Dorfman Award, honouring an international talent that represents the future of architecture.

The annual award, supported by the Dorfman Foundation, forms part of the RA's increased commitment to architecture and was decided by a distinguished international jury, chaired by the Royal Academician and co-founder of Stanton Williams Alan Stanton. Jury members included artist Phyllida Barlow RA, Director of LSE Cities Ricky Burdett, co-founder of Sauerbruch Hutton Louisa Hutton RA, Head of the Graduate School of Architecture at the University of Johannesburg Lesley Lokko, and broadcaster Kirsty Wark. They were joined by last year's winner of the Royal Academy Dorfman Award, Iranian architect Alireza Taghaboni and the winners of the Royal Academy Architecture Prize, Elizabeth Diller and Ricardo Scofidio.

Born and raised in the heart of Bangkok, Boonserm Premthada founded Bangkok

Project Studio in 2003. The practice celebrates the importance of craft in architecture, leading to carefully detailed projects with a deep sense of authenticity. Local construction methods and materials are crucial to Premthada's work. In buildings such as the Kantana Film and Animation Institute in Nakhon Pathom and Elephant World in Thailand's Surin Province, Premthada utilises the skills of local craftspeople and traditional production methods. He has a deep interest in the ways in which non-architects intuitively solve spatial problems and states that it is this that enables him to produce quality works that fulfil both their commercial and social potential regardless of scale. In addition to directing the studio, Premthada also teaches at Chulalongkorn University and is a regular lecturer at other universities and architecture associations.

Boonserm Premthada was selected from four finalists nominated for the Royal Academy Dorfman Award, including Fernanda Canales (Mexico), Alice Casey and Cian Deegan, TAKA (Ireland), and Mariam Kamara, Atelier Masomi (Niger). The £10,000 award was decided and presented at a ceremony at the Royal



Boonserm Premthada. Photo by Spaceshift Studio.

Academy of Arts, following public presentations by each finalist.

Boonserm Premthada said: "I am very happy to have been chosen as the winner of the Royal Academy Dorfman Award. It gives me the opportunity to share my love of architecture and what I believe in with the world."

First international real-time architecture festival in Jena/Lobeda focusing on urban development in high-speed and participative urbanity

Jena, Lobeda – For the first time, the international high-speed architecture competition "72 Hour Urban Action" took place in the Jena district of Lobeda. From the 2nd until the 5th of May 2019, 120 participants from over 26 nations conceptualised and realised contemporary architectural concepts in urban space. International experts develop ideas in collaboration with citizens of Jena in order to enable inhabitants to actively shape their own living space. The motto: Achieving great things with small changes.

"Urban planning from a different angle. '72 Hour Urban Action' puts Lobeda architecturally in an exceptional position. In only three days and nights 10 international teams are asked to rethink and recreate the city space of Jena Lobeda with little money, but great passion," said Markus Niessner, designer at niessnerdesign. A city of tents with dining, sleeping and working areas, were set up for the participants.

Architectural projects typically require a long and bureaucratic lead time. Within the framework of the architectural competition "72 Hour Urban Action" solutions will be found, which are fast and easy to implement, in order to increase the attractiveness of the neighbourhood. "In times when public space is almost entirely subject to retail, traffic, prohibitions or economic exploitation and when inhabitants of major cities are protesting for housing, the competitions symbolism is highly topical. At the same time, the event is a call for pro-activity and motivating guidelines across Germany," explained Lukasz Lendzinski from the architecture office "umschichten".

For both initiators, Gilly Karjevsky and Kerem Halbrecht from Israel is important, that residents become actively involved. "The main focus lies on the participation of citizens. Therefore, half of the participants are from Lobeda and the surrounding areas. This means that residents can take things into their own hands and contribute to the shaping of public space," added architect Halbrecht.



One for all – create a stage for social tensions. Photo: © Mor Arkadir

The exchange of ideas and skills is supposed to support the search for joint solutions and their realisation. Who knows better about what is needed in a city, then the people who live in it? That is why direct communication with residents is crucial, in order to locate sites of interest and to make the project possible. In advance workshops and surveys with residents have been carried out. Those formats helped exploit the city district and to get in touch with residents, experts and local actors.



Parklife – discover the potential in a neighbourhood's backyard. Photo: © Mor Arkadir



Nastasshea Rozario

ASEAN Marketing Communications Driver, Danfoss Cooling, Danfoss Industries Sdn Bhd

"Southeast Asia Building (SEAB) has always been our top priority media publication to reach out to the right audiences for our business. In the past years, working with Eric Ooi (Associate Publisher) and Amita Natverlal (Editor) has been a bliss. I truly appreciate their support and constructive advice to us whether it was for advertising or editorial coverage. Our brand positioning has improved with SEAB. Heartiest congratulations to SEAB for 45 successful years! I wish you an even greater success in many years to come. Cheers!"

Celebrate 45 years with us!



Buildings in Peru, Senegal and Chile are finalists for the 2019 RAIC International Prize of \$100,000 (CAD) for transformative architecture

Ottawa, Canada – The Royal Architectural Institute of Canada (RAIC) has announced the shortlist for the 2019 RAIC International Prize for socially transformative architecture. A six-member jury chose a university building in Peru, an artists' residence and cultural centre in Senegal, and a Baha'i Temple in Chile. The prize winner will be unveiled at a gala in Toronto, Canada on October 25, 2019.

A Canadian firm – Hariri Pontarini Architects, of Toronto, ON – achieved one of the shortlisted projects. The RAIC received submissions from 12 countries across six continents. 2019 marks the third edition of the biennial prize, which was founded in 2013 and is open to architects from anywhere in the world.

"We see in these exceptional buildings how architecture can strengthen community, bring together diverse peoples, lift the spirit, and exist in harmony with the environment," said RAIC President Michael Cox, FRAIC. "Each of these projects offers lessons that can be applied elsewhere, and we hope they will inspire architects around the world as they design for human well-being."

"The jury was struck by the diversity of these designs, from the inverted traditional Senegalese roof that serves as a water collector, to the unique glass-and-marble winged roof that fills the temple with light," said Jury Chair Diarmuid Nash, PP/FRAIC. "These architects have come up with unique and innovative strategies by listening to the needs of their communities."

The shortlisted nominees are:

Edificio E, Lecture Building
University of Piura, Piura, Peru
Completion: March 2016
Barclay & Crousse (Lima, Peru)

Edificio E reflects Peru's national policy of encouraging low-income rural students to attend wealthy private universities, as well as the university's program of social inclusion through education. The designers strove to create a non-hierarchical environment that fosters encounters among students from diverse backgrounds and their teachers. Located in a desert and dry-forest ecosystem near the equator, the building's generous, open-air gathering spaces bring shade and cross breezes and create a sense of community.

Thread: Artists' Residence and Cultural Center
Sinthian, Senegal
Toshiko Mori Architect (New York, USA)
Completion: March 2015

Located in a remote area near the border with Mali, the Thread cultural centre is a community hub for a network of isolated villages, offering spaces for artists, performance, a public library, and agricultural training. Thread adapted traditional building materials and local roof designs to collect rainwater and serve as a water source during the eight-month dry season. It is built

entirely from local materials, including bamboo and compressed earth blocks. The centre has increased social cohesion and provided stability in a community of diverse ethnic groups.

Baha'i Temple of South America
Santiago, Chile
Hariri Pontarini Architects (Toronto, Canada)
Completion: October 2016

The Baha'i Temple of South America is designed to be a place of welcome and meaning for everyone. Its design aspires to commonality within diversity, and it has attracted over 1.4 million visitors since opening in Fall 2016. The temple is composed of nine cast-glass and marble wings, achieving a sense of weightless movement, light, and at the same time permanence. At the edge of the Andes, it was built to withstand a rugged climate and an earthquake zone. Its 14-year realization involved hundreds of local volunteers and a global effort, including fabrication in Canada and Germany, marble from a Portuguese quarry, and Chilean tradespeople.

The RAIC, the RAIC Foundation, and distinguished Canadian architect Raymond Moriyama created the RAIC International Prize (formerly called the Moriyama RAIC International Prize) in 2013. Their goal was to share Canadian architectural values with an international audience and celebrate architecture that is socially transformative. One of the most generous architecture prizes in the world, it includes a monetary award of CAD \$100,000 and a sculpture designed by Canadian designer Wei Yew.

The prize, awarded every two years, is open to all architects, irrespective of nationality and location. The winner is selected in an open, juried competition. This year's jury of experts considered a range of criteria in the evaluation of submissions and will visit the shortlisted projects.

In addition to the main prize, three scholarships of CAD \$5,000 each will be awarded to three students of Canadian schools of architecture on the basis of a written essay.

The jury for the 2019 RAIC International Prize:

Anne Carrier, FRAIC – Founder of Anne Carrier Architecture (Lévis, Quebec), a firm that received the Governor General's Medal in Architecture in 2016 and the Architecture MasterPrize in 2018. Carrier is the president of the Association of Architects in Private Practice of Quebec (AAPPQ).

Stephen Hodder, MBE – Hodder Associates (Manchester, UK) received the most important award in British architecture for a single building, the inaugural RIBA Stirling Prize, and has won over 40 major awards. Hodder is past president of the Royal Institute of British Architects.

Barry Johns, FRAIC – Principal of Barry Johns Architects (Edmonton, Alberta), he was the first international recipient of the Leslie N. Boney Spirit of Fellowship Award from the

American Institute of Architects' College of Fellows in 2018. Johns is Past Chancellor of the RAIC College of Fellows.

Eva Matsuzaki, PP/FRAIC – Founder of Women in Architecture (Vancouver, BC), Matsuzaki (Matsuzaki Architects, Vancouver, British Columbia) was the first female president of the Royal Architectural Institute of Canada in 1998–99 and has served as the Chair of the Canadian Architectural Certification Board.

Diarmuid Nash, PP/FRAIC, Jury Chair – Diarmuid Nash is a partner at Moriyama & Teshima Architects (Toronto, Ontario), and his firm's designs have won two Governor-General's

Medals for Architecture. He is past president of the RAIC and Chancellor of the RAIC College of Fellows.

Gilles Saucier, FIRAC – Founding partner of Saucier+Perrotte Architectes (Montréal, Quebec), recipients of the RAIC Gold Medal 2018 and the first recipients of the Prix du Québec for design and architecture. His firm represented Canada at the Venice Architecture Biennale in 2004.

David Covo, FRAIC, Associate Professor, Peter Guo-hua Fu School of Architecture at McGill University, is the Professional Advisor to the jury.

Oppenheim Architecture completes Ayla Clubhouse & Golf Academy

Miami, New York, USA – Ayla Golf Academy & Clubhouse takes inspiration from the natural dunescapes and mountains of the surrounding desert as well as the architectural heritage of the ancient Bedouin. The innovative and organic design of the building forms the iconic core of the Ayla Oasis mixed-use resort development.

This 1,200 square metre building is part of the first phase of a 44 square kilometres leisure development currently under construction in Aqaba, Jordan. The development encompasses residential, hotel and commercial space, all centered around an 18-hole signature golf course. The Clubhouse features retail, dining, bar/lounge, banquet, fitness, and spa components; while the Golf Academy includes retail, dining, and indoor/outdoor swing analysis studio components.

The distinct architectural form of the Ayla Golf Academy & Clubhouse establishes a unique connection with nature by capturing the elemental, vibrant beauty of the rolling desert landscape. A massive concrete shell drapes over the program



Photo: © Rory Gardiner

areas, enveloping the interior and exterior walls of each volume. The curved shotcrete shell blends with the sand like dunes instead of having conventional walls and ceilings. Openings grant views towards the spectacular Aqaba Mountains in the background. Corten steel perforated screen filters the light, similar to the traditional Arabic 'Mashrabiya'. Jordanian patterns inspired the triangular pattern of openings while the tones of the surrounding

mountains are echoed in the colors of the shotcrete and the metals.

The construction of the project is the result of a knowledge exchange program between the European office of Oppenheim Architecture and local workforce. Shotcrete pouring techniques were taught to workers in the first phases so that they could take ownership of the construction and obtain specialised skills. A local artist also helped shape the building by applying a traditional pigmentation technique to the interior surfaces, granting a raw, unadorned look that stays true to its context and inspiration.



Ar. Tai Lee Siang,
Executive Director, BuildSG, Building and Construction Authority

“Congratulations SEAB on your 45th anniversary! On behalf of BCA, thank you for the continued support all these years, sharing inspirational stories and our newly introduced initiatives to the industry. SEAB played an essential role in our early days promoting construction productivity. I’m heartened to see that it has helped to bring in real changes in the construction scene in Singapore today, such as the use of Prefabricated Prefinished Volumetric Construction (PPVC). The inaugural International Built Environment Week will take place in September and I look forward to read more of SEAB’s coverage of the industry’s transformation, in support of the nationwide BuildSG movement.”

Celebrate 45 years with us!



Call for exemplary construction projects, visionary design concepts

Zurich, Switzerland – The LafargeHolcim Awards seeks leading projects of professionals as well as bold ideas from the Next Generation that combine sustainable construction solutions with architectural excellence. The 6th cycle of the international competition is open for entries until February 25, 2020. The Awards offer a total of USD 2 million in prize money and foreground projects and concepts from architecture, engineering, urban planning, materials and construction technology, and related fields.

Submissions in the LafargeHolcim Awards main category include sustainable construction projects at an advanced stage of design, with a high probability of realisation. Construction/fabrication must not have started before January 1, 2019. The Awards Next Generation category seeks visionary design concepts and bold ideas at a preliminary stage of design, including design studio and research work. To participate in this category, authors may not be older than 30 years. Students and young professionals are welcome to enter the Awards main category with projects that have reached an advanced stage of design.

Independent expert juries in five geographic regions of the world evaluate submissions using the comprehensive "target issues" for sustainable construction of the LafargeHolcim Foundation. The criteria cover innovation and transferability; ethical standards and social inclusion; resource and environmental performance; economic viability and compatibility; and contextual and aesthetic impact. The competition promotes circular thinking and the reduction of CO2 emissions across all disciplines. It identifies the ideas with the highest potential to tackle today's challenges to increasing urbanisation and to improve quality of life.

Submitting entries in the competition is free and must be made in English using a web-based form to provide information on authorship, a project summary, technical details, as well as project images and/or illustrations. **A "Step-by-step" guide explains the process in detail and shows how to prepare an entry at www.lafargeholcim-awards.org.**



"The LafargeHolcim Awards offers the chance to ask the right questions about tomorrow's construction – and to share the answers with a global audience." – Marilyne Andersen, Professor of Sustainable Construction Technologies, Swiss Federal Institute of Technology (EPFL Lausanne). Photo: Courtesy LafargeHolcim Foundation for Sustainable Construction, Switzerland



"The LafargeHolcim Awards highlights each project's contribution to solve a collective need and thus transform it into a collective desire." – Alejandro Aravena, Partner Architect, Elemental, Chile. Photo: Courtesy LafargeHolcim Foundation for Sustainable Construction, Switzerland



"The LafargeHolcim Awards gives the project authors credibility and publicity; people begin to believe in them and that really helps them build career momentum." – Brinda Somaya, Principal Architect, Somaya & Kalappa Consultants, India. Photo: Courtesy LafargeHolcim Foundation for Sustainable Construction, Switzerland

Ropa & Associés Architectes delivers AGORA in Metz

Montreuil, France – The firm Ropa & Associés Architectes has just delivered the AGORA in Metz. An ambitious and innovative program for France, it gathers under one roof a media library, a social centre and a digital work space.

This new pole of attraction is the cornerstone of a district in the midst of vibrant urban renewal. It signals its presence with colorful and open architecture. The project is based on the hybridization of uses, openness to the neighborhood and welcoming accessibility and utility to users of all ages. The whole, comprised of buildings and outdoor areas, contributes to restoring a local and immediately appreciable urban look and feel.

With this project the architects strove to strictly hew to fulfilling the expectations of the ambitious and innovative program and even to further enhance it. Without losing sight of the objective of functional clarity and ease of use, this facility is at the service of the enthusiastic desire of an entire community to regenerate the urban life of the district through the concept of a "third place."

The layout of the Agora – initially with a view to maximising public space and ensuring the best possible protection against the noise occasioned by the presence of a nearby railway – becomes the medium for the construction of a powerful narrative and the differentiated treatment of each microcosm of the program.

The implementation of transparency, a guiding principle, ensures visibility of the building's different uses from the street. The organisation of the public space on the south side of the building creates a central meeting place. A screen is affixed to the red cube of the media room, thereby offering the possibility of hosting an outdoor cinema with programmed screenings of films, sporting events, cultural events, etc.

On the north side, the background is a sloping formation atop which pass some 230 trains every day. Thus, the linear building has been conceived with a nod to elements of railway vocabulary and a profile with an optimised shell designed for acoustical protection and to muffle noise created by the echo effect between



Photo: © Luc Boegly

passing trains and the building.

From the outside, openings in the shape of portholes accentuate the reference to trains, while from the inside, they frame this movement of trains, thereby transforming it into a kinetic decor, serving as both protection and visual backdrop.

Inside the red cube a multi-purpose space for cultural expression features a fully equipped stage. This facility is designed for hosting shows, public readings, artistic presentations as well as the Micro-Folie Metz project.

On the floor just above there is a fitness and sports space and reading and working areas equipped with multimedia technologies, as well as a Fab-Lab and a visual arts gallery. Finally, on the top floor, a reading area reserved for adults, with specially designed furniture, opens to the exterior with an outdoor experimental garden.

Increasing the possibilities of interior and exterior pathways, twisting by inspiration drawn from the principle of

the Möbius strip, is a constant aim of the firm in the development of its projects. Here, the layout is enhanced by a playful staging of footbridges and exterior staircases, offering an aerial promenade among the branches of a little grove, creating a free and open space for play and adventure.

The buildings' structure is comprised of a concrete and metal framework. The materials chosen for the project include wood, in natural hues or stained in a bright red, smooth and undulating or woven stainless steel for the guardrails and glazing from top to bottom.

Very wide overhangs create broad open areas for outdoor activities and provide protection from the sun without blocking views. Light wells flood the building's core with sunshine, efficiently compensating for the building's thickness and overhangs.

The AGORA has been certified a High Environmental Quality Building (LEED equivalent) under the CERTIVEA Tertiary Building label.



Photo: © Luc Boegly

John Portman & Associates announces 712 West Peachtree project

Atlanta, Georgia, USA – John Portman & Associates has announced the design for a new Midtown Atlanta office tower.

Developed by Portman Holdings, LLC., 712 West Peachtree is an office tower in Midtown Atlanta, aiming to serve the emergent technology corridor amidst: NCR's headquarters, Georgia Tech's Tech Square, Coda, Anthem Technology Center, and Norfolk Sothern's Headquarters.

712 West Peachtree will continue the Anthem New Technology experience started with the Building under construction at 740 West Peachtree St. It will extend and compliment the lifestyle amenities of the first phase yet customising the design to the groups that will occupy these new spaces. The design intent at ground floor is to promote street activity, continuing the pedestrian friendly approach started with Coda.

The building shares a city block, integrated active ground floor space, parking, and 8th floor exterior terrace with Anthem Technology Center at 740 West Peachtree next door. The building will offer stunning views of Midtown and Downtown Atlanta from its 13 office floors situated above an 8-storey parking deck. The vertical integration of programmatic elements allows the building to maximise a compact site area within the urban context.

The gross project area is 578,851 square feet. The Office Building stands 20 storeys above grade and one level below grade. Above ground floor there are 8 levels of Parking Garage. Office areas occupy next 13 levels on levels 8 through 20. The total rentable area is 309,465 square feet, retail area of 8,761 square feet, and 516 parking spaces.

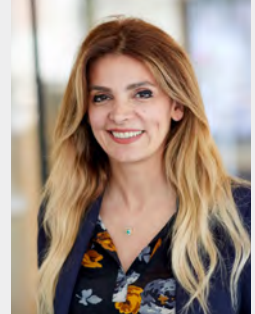


Photo: © John Portman & Associates

Perkins+Will's New York studio announces leadership promotion in support of Healthcare Practice

New York, New York, USA

– The New York studio of global architecture and design firm Perkins+Will has announced the promotion of Maha Sabra, AIA, OEA, LEED AP BD+C, to Associate Principal. As a Senior Project Manager, Sabra plays a central role leading the studio's healthcare teams on a variety of complex projects. Her ability to cultivate relationships and manage all aspects of project design and delivery has ensured successful results for clients time and time again.



"Healthcare design plays a pivotal role in the treatment of both physical and mental health. Through the buildings we design, architects can improve both the patient recovery process and the day to day lives of the healthcare professionals that treat them," said Sabra.

Sabra is a licensed architect with a Masters in Architecture from the Université De Balamand–Académie Libanaise Des Beaux–Arts in Lebanon, and has over 20 years of design and project management experience. Her portfolio includes prominent academic medical centers, clinical projects for high-profile healthcare systems, and commercial development properties in the U.S. and overseas. Her most recently completed project is the Memorial Sloan Kettering Cancer Center in Middletown, New Jersey, which in 2018 won a prestigious national healthcare design award from the American Institute of Architects.

Sabra's promotion comes at a busy time for the New York studio. The studio is overseeing a physician's tower for a leading academic medical center, a musculoskeletal health institute, and a series of workplace studies for the healthcare industry – in addition to 799 Broadway, a mixed-use commercial building in Manhattan. The studio's planning and design of Unilever's North American Headquarters recently earned the designation of LEED Project of the Year by the U.S. Green Building Council's New Jersey chapter.

What you need to know about Hardwood Flooring Adhesives

Text and photos courtesy of Bona

When it comes to installing hardwood floors, the right adhesive is crucial to a job well done. During the installation of a solid nail down wood flooring, it is common practice to “glue assist” in areas such as starting and ending rows along with borders. When installing wide plank flooring, the flooring industry recommends the use of adhesive in addition to nailing. All-purpose construction adhesive is commonly used for this important installation method due to its convenience and availability at the box stores, however the short and long term drawbacks of using construction adhesive are clear. Save the hassle by implementing these best practices for adhering wide plank flooring.

First, keep in mind that all wood floors are under a fairly constant state of shrink and swell due to factors like seasonal changes in the percentage of relative humidity within a home, yet many DIY construction adhesives are designed to create a rigid bond. An adhesive without elongation properties (to account for the shrink and swell) can allow the flooring to dislodge due to shear stress. This is where using adhesives specifically designed for solid wood flooring installations for a glue assist application is critical for success.

Solid wood flooring adhesive manufactures, whether urethane or silane, will generally publish both the shear strength of the product (expressed as psi) as well as the elongation rate (expressed as a %) to assist in determining which product will provide the right balance of strength and flexibility. Because of the natural shrink and swell of hardwood floors, a solid wood floor is going to experience a wide range of environmental movement. An adhesive manufactured specifically for wood flooring installations can adapt to these environmental changes and maintain the necessary degree of adhesion.

The application method for accomplishing this important step when installing wide plank flooring has been made even simpler. Several manufactures produce solid wood flooring adhesives in 20-ounce aluminum foil tubes or “sausages” (about twice the size of a standard adhesive cartridge). This packaging offers minimal waste compared to construction adhesive cartridges packaged in cardboard (which is more susceptible to hardening after being exposed to moisture once opened). Additionally, the applicator guns that house the foil sausages are more ergonomically designed than a standard caulking gun, making a glue assist easier to complete.

Also important to the process is determining how quickly the floor needs to be back in action. Chlorinated solvents were



once the adhesive of choice in the mid-1990's and it was absolutely necessary to allow the adhesive to flash off prior to installing the wood. Most of today's wood flooring adhesives, whether urethane or silane, are installed in a wet lay manner. If there are no concerns that boards may get shifted out of place from “light foot traffic” during the installation time frame, then an adhesive with a longer open time will be suited for that application. If the flooring will be subjected to “normal foot traffic” during the installation period or the flooring needs to be sanded and finished soon after completion, then an adhesive with a shorter open time will be better suited for that application.

Generally speaking, the longer the open time the longer it will take the installed flooring to reach full cure. When the floor reaches full cure the room can be back into service or, in the case of an unfinished installation, the professional flooring contractor can get back on top of the floor with sanding machines that will create a degree of vibration through the floor without risk of breaking the bond.

A key advantage of moisture curing silane technology is the ease of clean up on the surface of prefinished flooring. Many new wood flooring installations use prefinished wood which elevates the need to use adhesives that will not mar or chemically etch the prefinished surface. Silane technology makes clean up easy but also doesn't sacrifice shear strength. Several brands offer high psi ratings that rival and exceed those of urethanes, while also providing elongation (beneficial to the natural shrink and swell of hardwood floor mentioned earlier).

Remember that all-purpose adhesives are not designed to do all things. When adhering a hardwood floor, and particularly when completing a glue assist on a wide plank floor, make the determination to use the right adhesive. Your project will have greater success and the floor will last for years to come.

The first MENA Green Building Congress held in Amman, Jordan



A group photo of delegates, speakers and organisers during the final day of the Congress. Photo: © World Green Building Council

Amman, Jordan – The Middle East and North Africa (MENA) region congress was held on the 24th, 25th, and 26th of February 2019 at the Kempinski Hotel, Amman – Jordan. Organised under the patronage of HE Dr. Omar Al Razzaz, Prime Minister of Jordan, in cooperation with the Jordan Green Building Council, and with the sponsorship from Majid Al Futtaim Holding; the World GBC's MENA Green Building Congress 2019 represented an opportunity to share the latest trends across the industry internationally and regionally. It was a chance to share success stories and discuss ways MENA Green Building members can collectively respond to challenges facing the region. Furthermore, it highlighted means to ensure that buildings provide a high quality of life for people, minimise negative impacts on the environment, and maximise economic benefits.

The congress brought together government, business, city and civil society leaders to exchange ideas on best practices for green buildings to address the regions' environmental, economic and social challenges. Four primary topics were covered during the congress, including Health and Wellbeing, Sustainable Reconstruction and Rehabilitation, Advancing Net Zero buildings, and Embodied Carbon.

World GBC's Chair Lisa Bate gave a keynote speech and emphasised the need for action. World GBC's Global Project heads, Victoria Burrows and Catriona Brady gave an insight into some of the global efforts within their domain. Congress also included speakers from EBRD, UN Habitat and many other international organisations. In addition, leading companies and individuals from 21 countries were amongst the speakers and participants, this included members of the World GBC's Corporate Advisory Board such as Saint Gobain, Signify and

Majid Al-Futtaim Holding.

All nine MENA Green Building Councils (GBCs) participated, including Emirates, Morocco, Egypt, Palestine, Lebanon, Jordan, Kuwait, Bahrain and Qatar. During their regional meeting, each GBC presented its approach towards responding challenges and opportunities on the ground. And after much deliberations MENA GBCs acknowledged the need to Advance Net Zero Building to achieve Paris agreement goals, called for the development of sustainable reconstruction and city regeneration guidelines, recognised the need for healthier buildings for all and emphasised on the need to address



World GBC Chair, Lisa Bate, giving a keynote speech at the Congress. Photo: © World Green Building Council

embodied carbon in buildings to combat climate change.

The World GBC's MENA Head, Mr Mohammad Asfour indicated: "The Middle East and North Africa region is currently home to over 350 million people, and its population growth has been characterised by rapid urbanisation. This is projected to continue, with urban population expected to double from 2010 to 2050. This means a large demand for buildings, complicated by the challenges of conflict-induced displacement of people. Concrete steps need to be taken now if the future of our youth is to be secured."



**A discussion panel around one of the main topics focused on during the Congress.
Photo: © World Green Building Council**

EmiratesGBC wins Dubai Quality Award for excellence in creating value for its members

Dubai, UAE – The Emirates Green Building Council (EmiratesGBC), an independent forum aimed at conserving the environment by strengthening and promoting green building practices, has been chosen as the winner in the Representative Entity category of the Dubai Quality Appreciation Award at the 25th Business Excellence Awards

ceremony held at the Madinat Jumeirah Arena Ballroom.

Under the patronage of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, UAE Vice President and Prime Minister and Ruler of Dubai, these prestigious Awards include the Dubai Quality Award (DQA), Dubai Human Development Award (DHDA) and the

Dubai Business Excellence Scheme (DSES). The ceremony is hosted annually by the Dubai Economic Department (DED), and the Awards honour and recognise the sustained high-quality performance, achievements and excellence of various businesses and entities.

EmiratesGBC was awarded for the Representative Entity category recognition, which falls under the broader framework of the DQA, for its noteworthy role in engaging, offering benefits and creating value for its members.

Saeed Al Abbar, Chairman of EmiratesGBC, said: "We are honoured by this significant recognition at the Dubai Quality Awards, which further underlines our commitment to creating sustained value for our members and stakeholders. With the UAE's attention on sustainable development and to realise the green vision envisaged by our leadership for the nation, we are focused on raising awareness and strengthening industry partnerships to promote tangible action towards sustainability in the built environment. The recognition highlights the best practices that we follow in our work practices."



Photo: © Emirates Green Building Council

Victorian Comprehensive Cancer Centre – Melbourne



A view of the exterior of the Victorian Comprehensive Cancer Centre.

Mapei applied vinyl and textile wall and floor coverings in a new hospital complex specialising in the research and treatment of tumours.

Located in the biomedical district of Parkville, a suburb of Melbourne, the Victorian Comprehensive Cancer Centre (VCCC) was inaugurated in July 2016. The hospital complex has become Australia's leading oncology centre for the research and treatment of tumours and for the quality of training for its medical and paramedical personnel, thanks also to the cutting-edge equipment available and the hospital's research laboratories.

The structure extends over an area of 130,000 square metres and has 13 floors above ground level and a further four floors below ground level reserved for parking.

Although the VCCC is separated from the Royal Melbourne Hospital by a busy main road, the two hospitals are connected by three covered bridges so that patients, visitors and medical personnel can move freely between the two structures.

A hospital designed for research and treatment

Something of a novelty in Australian hospital architecture is the large central atrium, known as the "Welcome Lounge". Illuminated by natural light, it stands at the centre of the structure and makes finding your way and moving around

inside the hospital that much easier.

The complex has 160 beds for long-term patients, 110 beds for the day hospitals and chemotherapy, 8 operating theatres, 28 treatment rooms for the doctors and nurses, 8 radiotherapy bunkers and 97 doctors' studios.

Plenty of space has also been set aside for teaching and training classrooms, as well as areas for seminars and meetings and a large conference hall.

The idea behind the VCCC was that it would become Australia's leading centre for the research and treatment of tumours: which is why it also has 10 research laboratories, where around 600 research scientists can carry out their work. The wet laboratories (specially designed structures where chemical substances, medicines and biological material can be tested in safety with no risk of biological contamination) are located on the upper floors of the structure. All the research areas were purpose-designed so that they could be reconfigured in the future and used for other purposes.

Wellbeing for the patients and safety for the hospital staff

The directors and designers of the hospital specified the application of products which were not only rapid,

but that also guaranteed the wellbeing of patients and the complete safety of the medical staff; which is why Mapei Technical Services proposed, where possible, a series of products with excellent performance characteristics that also have the capacity to guarantee a low impact on the environment and on the health of the workers using the products and the end users of the structure.

The intervention commenced by applying PLANISEAL EMB on all the concrete substrates, a two-component waterproofing primer, produced in the USA and distributed in Australia, that forms a vapour barrier and reduces the transmission of moisture.

The substrates (a total surface area of around 100,000 square metres) were then treated with ECO PRIM T, solvent-free acrylic primer with very low emission of volatile organic compounds (VOC). To create a perfectly flat surface before bonding the selected coverings, ULTRAPLAN self-levelling, ultra rapid-hardening smoothing and levelling compound was applied on the substrates in layers from 1 to 10 mm thick.

In the bathrooms and in the areas with problems of damp (around 60,000 square metres), the surfaces were also waterproofed with MAPEGUM WPS



Before installing the floor coverings, the surfaces were levelled with ULTRAPLAN . The vinyl floor coverings were installed with ULTRABOND ECO V4 SP.

quick-drying, elastic liquid membrane before bonding the coverings. To provide extra strength, MAPETEX SEL non-woven polypropylene fabric was applied between each coat of MAPEGUM WPS.

In the areas around the drains, the substrates were initially primed with ECO PRIM T and then levelled off with UC LEVELLER quick-hardening skimming compound, produced and distributed exclusively in Australia, ideal for surfaces that require a high level of resistance to heavy loads and high volumes of traffic. The intervention was completed by skimming all the uneven surfaces with LATEXPLAN TRADE smoothing compound with high compressive strength, suitable for substrates subjected to high volumes of traffic, and with PLANIPREP SC high-performance, fibre-reinforced skimming compound.

Once the substrates had dried out, the flooring company installed around 60,000 square metres of vinyl flooring using ULTRABOND ECO V4 SP installation system – around 2,000 square metres of vinyl flooring (Gertflor Taralay) was applied to the walls using ROLLCOLL acrylic adhesive in water dispersion.

To bond around 40,000 square metres of self-laying carpet tiles (Interface Carpet Tiles), the product recommended was ULTRABOND ECO TACK tackifier in water dispersion for carpet tiles with very low emission of VOC.

Article source: Realtà Mapei International no. 62/2017

For more information, email mapei@mapei.com.sg.

Mapei Products

Substrates preparation: Eco Prim T, Latexplan Trade*, Nivorapid, Planiprep SC*, Planiseal EMB*, UC Leveller*, Ultraplan

Waterproofing: Mapegum WPS, Mapeutex Sel

Installation of vinyl coverings: Ultrabond Eco V4 SP, Rollcoll

Installation of textile coverings: Ultrabond Eco Tack

Products for sealing: Mapeflex PU 45

* These products are distributed on the Australian market by Mapei Australia Pty Ltd



The vinyl floor coverings were installed with ULTRABOND ECO V4 SP multipurpose adhesive in water dispersion.

PROJECT DATA

Project Name: Victorian Comprehensive Cancer Centre (VCCC)
Location: Melbourne, Australia
Period of Construction: 2011-2015
Year of the Mapei Intervention: 2015
Intervention by Mapei: Supplying products for preparing, waterproofing and leveling substrates, for the installation of vinyl walls and floors and self-laying textile tiles
Project: Silver Thomas Hanley, DesignInc and McBride, Charles Ryan
Client: Victorian State Government
Works Direction: Plenary Health
Contractor: Floor91
Installer Company: Grocon
Mapei Co-ordinator: Scott Coutts (Mapei Australia Pty Ltd)
Photos: © Mapei

Certified hygienic wall paints for a healthier environment



In the modern lifestyle, paint has been used to decorate spaces that we live, work and play in. Sometimes, it is necessary to have a hygienic environment at home, in the workplace, in specific industrial environments and other facilities. It is especially so for environments such as the healthcare sector and food and beverage industry.

Mapei has developed hygienic paints for these sectors that comply with international standards.

Mapecoat ACT 021 enamel paint for the Food and Beverage industry

Mapecoat ACT 021 is a durable hygienic enamel paint for interior facades, designed to provide long-lasting protection and makes it easy to clean. It has very low levels of dirt pick-up and odour release. Furthermore, it can block the formation and spread of mould, making it particularly suitable for protecting areas difficult to reach during normal cleaning operations, such as ceilings. The paint is resistant to changes in temperature which makes it suitable for use in refrigeration units.

Mapecoat ACT 021 bonds perfectly to all types of masonry, render, smoothing and levelling compounds and old paintwork, as long as they are well bonded and sound. It not only protects but also gives surfaces an attractive smooth and satin finish. The paint is ideal for the food and beverage environments that require a high level of hygiene and long-term durability – grocery stores, supermarkets, bars, restaurants, cafes, kitchen areas and more.

Mapecoat ACT 021 complies with the requirements of HACCP protocol (Hazard-Analysis and Control of Critical Points, i.e. standards that specifies the requirements and relative test procedures for paints and varnishes used on walls and ceilings



Mapecoat ACT 021

in areas used to handle and process food.)

Mapecoat ACT 196, long-lasting hygiene protection for the Healthcare sector

Mapecoat ACT 196 is an acrylic-based paint that contains special protective, wide spectrum biological agents that impedes the growth and spread of bacteria on surfaces. Mapecoat ACT 196 is tested, according to ISO 22196 standards, for its effectiveness against attack from the main strains of bacteria such as Staphylococcus aureus, Escherichia coli, MRSA and Pseudomonas aeruginosa.

In environments where hygiene is essential, cleaning and sanitizing are often carried out. This means the paint has to be durable. Mapecoat ACT 196 has excellent resistance to cleaning cycles and special washing agents and disinfectants. It has very low dirt pick-up which makes surfaces easy to clean and therefore considerably reduces maintenance costs.

Mapecoat ACT 196 bonds perfectly to all types of masonry, render, smoothing and levelling compounds and old paintwork as long as they are well bonded and sound. It is suitable for internal areas that are (i) subject to a high rate of visitors and exposed to potentially high levels of microbes such as nursing homes, schools, wellness areas, gymnasiums, changing rooms and more; (ii) requires a high level of hygiene and cleanliness on internal facades used for medical purposes such as hospitals, surgical wards, diagnostic centres, rehabilitation units and more.

Besides its functional characteristics, facades can be made beautiful with Mapecoat ACT 196 wide range of colour options and smooth satin finish.

For more information, please email mapei@mapei.com.sg.



Mapecoat ACT 196



Singapore Changi General Hospital, Medical Centre

As part of the expansion of its existing campus, the Singapore Changi General Hospital has built a new Medical Centre, which is designed to be patient-centric, age-friendly, flexible and sustainable.

Located within the eastern public healthcare cluster of Singapore, the Changi General Hospital (CGH) campus spreads across approximately 180,000 square metres at Simei. As part of the expansion and intensification of the existing CGH campus, the addition of the new Medical Centre, together with the Integrated Building (completed by B+H in collaboration with RDC in 2014), reimagines the entire campus as a community hub for wellness and healing through an environment that encourages patients' smooth transition back home and to their community.

The design features of the new Medical Centre building demonstrate a holistic approach to healthcare design that is patient-centric, age-friendly, flexible, and sustainable. We approached the campus design as a whole, working towards optimizing operational efficiencies through a comprehensive functional planning approach focusing on key adjacencies, building linkages and opportunities for future expansion. The centre portion of the CGH site has been re-purposed as a landscaped open space framed by the existing campus and new Medical Centre building. "Deeply rooted in the principles of Evidence-Based Design, the facility embodies the latest thinking in outpatient care delivery with a focus on flexibility, adaptability, and future proofing through a standardised and modular layout. Its architectural expression echoes this ethos, featuring clean, swooping lines built from pre-assembled modular systems resulting in a reduction in construction schedule and high-quality building finishes," said David Stavros, Principal and Senior Director of Design, B+H.

Located next to the hospital's main building, the new Medical Centre houses 15 specialist clinics and centres with more than 130 consultation rooms. At nine storeys, the building





“The CGH Medical Centre building represents the second phase of an ongoing, campus-wide revitalisation at Changi General Hospital that will provide a continuum of care for the Eastern region of Singapore.”

– David Stavros, Principal and Senior Director of Design, B+H.

is designed to facilitate a new model of care in Singapore enabling multi-specialty practices (MSPs) that are intended to provide more accessible and streamlined care to patients. The clustering of medical centres and services under one roof allows patients with complex medical conditions to seek consultation from different specialty doctors on the same day resulting in faster diagnosis and more timely treatment options. This latest planned facility echoes a wider movement by local healthcare establishments towards having one-stop centres that provide greater patient-centric care. The Medical Centre Building is targeting Singapore BCA Green Mark Platinum.

PROJECT DATA

Project Name: Singapore Changi General Hospital, Medical Centre
Location: Singapore
Size: 46,000 square metres
Client: Ministry of Health Holdings, Singapore
Architect Firm: B+H Architects (In collaboration with RDC)
Completion: End 2018
Photos: Copyright of photographer Benny Loh

Exceptional architectural door sealing systems for healthcare facilities

Kilargo's innovative products are designed to contain the spread of fire, smoke and sound with many also providing weather protection and energy savings.

The company delivers integrated and cost-effective systems that are ideal for any commercial building, high-rise complex, health or education facility.

Kilargo is built on a 30-year commitment to be the best. The company stands proudly at the forefront of the industry, driving standards and delivering products that lead the way in design, manufacturing and quality.

Architectural Door Seals

Professionally manufactured to exacting standards, Kilargo Architectural Seals have been developed for use in modern healthcare, commercial, industrial and public buildings.

The seals provide an exceptional, cost-effective solution for:

- Containing sound
- Limiting the spread of fire and smoke
- Improving energy efficiency
- Preventing weather infiltration

Our solutions: your choice

Kilargo's solutions are designed to meet or exceed specific building regulations, while providing superior quality and peace-of-mind.

Its range is comprehensive but it is simply about selecting the most effective combination for your needs. The company is inspired by variety, often



working with industry partners to develop unique, customised solutions.

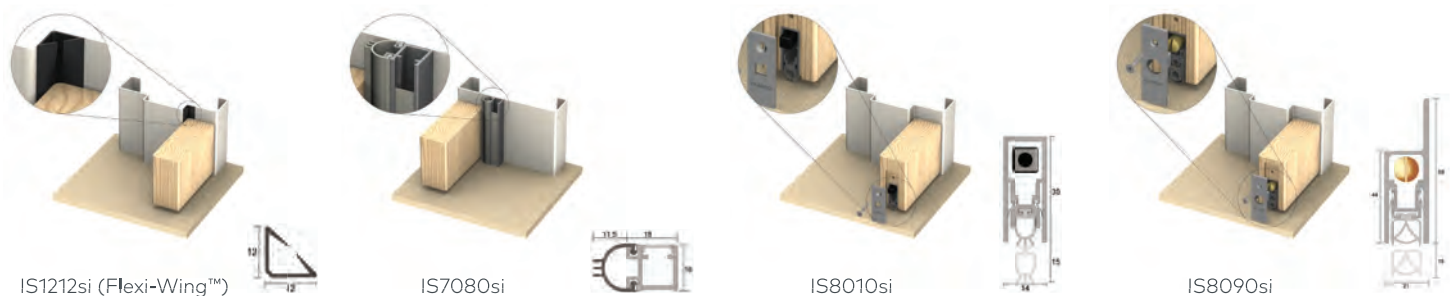
Kilargo Technical Support

Kilargo provides free technical support for the design, specification and installation of its Architectural Door Sealing Systems. Kilargo's Architectural Seals are proudly manufactured entirely in Australia. This allows the company to

offer its customers outstanding quality, dedicated customer support, short lead times and fast turnaround and customised product manufacture.

Kilargo is a member of the dormakaba Group. Kilargo Architectural Seals are available in Singapore from dormakaba Singapore Pte Ltd.

For more information email rex.chan@dormakaba.com.



Milwaukee Regional Medical Center

Photo: © Mortensen





The Milwaukee Regional Medical Center (MRMC) master plan aims to evolve it from a suburban single-purpose medical centre into a mixed-use healthcare campus integrated with its community context.

The Milwaukee Regional Medical Center (MRMC) master plan provides a long-range development vision and implementation strategy to guide MRMC's evolution from a suburban single-purpose medical centre into a mixed-use healthcare campus that is walkable, internally connected, and better integrated with its community context and the emerging Wauwatosa life sciences district.

Sasaki led a master planning process to position MRMC and the City of Wauwatosa for complementary growth over the next 20 years. Already a major community asset and economic engine for the region, MRMC is poised for accelerated development. The plan reflects MRMC's leadership in healthcare, science, innovation, education, and research. It enhances the identity of MRMC as a place that supports healthy living, bolsters the retention and recruitment of talented staff, and strengthens the region as an employment hub.

"Medical centres such as MRMC are evolving their physical campuses increasingly on the principles of high-quality place-making and urbanism, which include making better pedestrian and vehicular connections, mixing uses, increasing density, integrating natural systems into their public and green spaces and improved the overall experience for patients staff and visitor," said Fred Merrill, FAICP, LEED® AP, Sasaki Principal and Senior Planner.



“Driving principles of the master plan include creating a flexible development framework; enhancing campus identity; an integrated network of complete streets; creating a coherent development pattern for future projects; and creating integrated networks of greenspaces, and natural areas that promote health and wellness and a sustainable campus.”

– Fred Merrill, FAICP, LEED® AP, Sasaki Principal and Senior Planner





Advancing MRMC's mission of "one standard of care for all" depends on physical and operational campus considerations. Issues such as institutional growth, campus access and connectivity, changing paradigms of care, and the evolving notion of what makes a good workplace influence facilities choices that will determine the physical quality and character of the MRMC campus in the future. In order to remain competitive among top-tier medical institutions around the world, MRMC is prioritising investment in the kinds of uses, spaces, and amenities that contribute to a great place and campus.

The master plan provides a forum for MRMC's member institutions to implement a coordinated campus vision that benefits each institution and the campus as a whole.

MRMC leadership is leveraging the master plan to manage growth collectively and strategically, with a focus on the following campus goals:

- Optimise decision-making among MRMC members and enhance predictability through a partnership model for coordinated infrastructure and land use choices.
- Enhance attractiveness of the MRMC campus through consensus-based, incremental steps to evolve from a single-purpose suburban place to an urban mixed-use health and wellness district.
- Ensure campus efficiency through modernized transportation, parking, and utility systems, as well as opportunities for members to share resources and amenities.

MRMC is a consortium of six leading health care institutions including Froedtert Hospital, Children's Hospital, Medical College of Wisconsin, BloodCenter of Wisconsin, Curative Care Network, and Milwaukee County Behavioral Health Division. Sasaki collaborated with Graef and Nelson\Nygaard to develop the plan.

PROJECT DATA

Project Name: Milwaukee Regional Medical Center
Location: Wauwatosa, Milwaukee County, Wisconsin, United States
Client: Milwaukee Regional Medical Center (MRMC)
Architect Firms: Sasaki with Graef and Nelson\Nygaard
Size: 225 acres
Completion: March 2016
Photos: © Sasaki



Kachumbala Maternity Unit

The brief was to design and build a new maternity unit to improve local maternity capacity to increase the safety of both mother and child.

The development and construction of a new maternity Unit at Kachumbala Health Centre 3 some 300 kilometres from Kampala, deep in the rural area where 95 percent of the population are peasant farmers, by volunteer professionals and construction apprentices is a truly remarkable story. The brief was to design and construct a new maternity unit to improve local maternity capacity to increase the safety of both mother and child.

The objectives were to:

- reduce the number of home births
- increase medical supervision
- ensure new mothers remain in the Centre for 24 hours aftercare
- promote the importance of primary healthcare





“A key objective was investment in the local economy. Local labour was used to generate rural employment. A workforce of around 40 men living locally worked alongside project volunteers, who exchanged skills and best practice. An estimated 95 percent of materials were sourced and fabricated within 20 miles of site.”

– Dan Flower, HKS Design Director



Simple to build, use and operate, the unit increases privacy and dignity for patients, promotes cleanliness, and improves working conditions. Using passive design principles and basic solar, water and waste resource management technologies, the building can operate at net zero energy for extended periods. The construction phase employed 40 local labourers and helped train 30 apprentices. Sourcing local materials for over 90 percent of the construction meant most of the build cost was spent in nearby businesses, benefitting the local economy.

"This story begins in January 2014, when First Minister for Wales visited the Kachumbala area in rural eastern Uganda, and the local municipality set him a challenge: to reduce neonatal and maternal mortality by improving maternity provision in this remote area," said Dan Flower, HKS Design Director.

"Just three-and-a-half years later, a £110,000 unit serving a population of 60,000 opened, the result of a collaboration between Engineers for Overseas Development, HKS Architects and Cyfle Building Skills," he added.

Through its locally sourced material palette, the building sits well in its surroundings, the ochre tones of the terracotta shade screen rooting the building in its place. Using its split roof form to collect rainwater, one collection tank is used

to supply the building while the other is available to the community and family accompanying mothers, to help cook and wash during her stay.

Local midwives have been trained in pre-term birth techniques and formed a referral link to the local neo-natal unit, which saw over 60 referrals in the first 6 months. Data collected from the centre since the opening in November 2017 shows a steady increase in attendance and birth rates, proving that new facilities have reversed previously declining figures.

PROJECT DATA

Project Name: Kachumbala Maternity Unit
Location: Kachumbala, Uganda
Client: The people of Kachumbala Health Centre 3
Architect Firm: HKS Architects and Engineers for Overseas Development
Size: 2,960 square feet
Completion: 2018
Photos: © Peter Landers Photography



ALUCOBOND® creates stunning facade for Jewel Changi Airport

ALUCOBOND® PLUS 4mm aluminum composite panels have played an integral part as cladding for the facade of the iconic Jewel Changi Airport in Singapore.

Sitting on a prominent site within Changi Airport Terminal 1, the Jewel is an astonishing architectural achievement, which has wowed its visitors since its official opening in April this year.

Due to its massive size and shape, giving the building the right appearance was of paramount importance for the whole design team.

To provide a strong visual identity and strong street presence for the Jewel, more than 40,000 square metres of

ALUCOBOND® PLUS 4mm aluminum composite panels were provided by 3AComposites, a leading manufacturer of aluminium composite materials with a global presence in Singapore.

The company supplied two finishes – Sunrise Silver Metallic (600) and Jewel Silver Grey (9696) – for the dome of the Jewel, coach canopy ceiling / roofing areas as well as internal and external columns in the building.

ALUCOBOND® aluminum composite panels offered many attractive features

to the project. The panels are rigid, yet flexible composite facade material. They are extremely weatherproof, impact-resistant and break-proof, vibration damping and ensure easy and fast installation. In addition, the material is backed up by ALUCOBOND®'s international warranty and complies with the very stringent fire regulations set out by the Singapore Civil Defence Force in Singapore.

The colour and facade material were carefully chosen to create a distinctive



look for the Jewel. Commenting on the products, Mr Arjen Flierman, Architectural Solutions Director – Asia Pacific of Alucobond (Far East) Pte Ltd said: "For the final selection of our Alucobond product, designers and owners visited our factory in China to verify that the selected product is

suitable for this iconic landmark project."

However, the project also presented some challenges to ALUCOBOND® and its team. Mr Flierman explained: "The custom colour Jewel Silver Grey (9696) went through many rounds of approvals by the consultants and owners before finally being approved."



PROJECT DATA

Project: Jewel Changi Airport
Location: Changi Airport Terminal 1, Singapore
Client: Jewel Changi Airport Development (a joint venture between Changi Airport Group and CapitaLand)
Facade Products: ALUCOBOND® PLUS 4mm aluminum composite panels
Finishes: Sunrise Silver Metallic (600) and Jewel Silver Grey (9696)
Quantity: 40,000 square metres
Supplier: Alucobond (Far East) Pte Ltd
Applications: Dome of the Jewel, coach canopy ceiling / roofing and internal & external column in the building
Year of Supply / Installation: Q1 / 2017
Year of Completion: Q4 / 2018
Photos: © Alucobond (Far East) Pte Ltd



Scheduled for completion in 2023, One Pearl Bank will be the tallest residential development in the Outram–Chinatown district in Central Singapore at 178 metres.

One Pearl Bank

CapitaLand has unveiled the design of One Pearl Bank in Singapore, featuring extensive greenery on its facade.

CapitaLand has unveiled the highly-anticipated design of One Pearl Bank perched atop the verdant Pearl's Hill in Singapore. The development comprises two gently curving 39-storey towers linked at the roof by dramatic sky bridges. The slender, curved facades create a light and airy effect, providing ample space for residents and onlookers to look out and through the towers to admire the stunning views atop the hill. Towering at 178 metres, One Pearl Bank will be the tallest residential development in the Outram–Chinatown district in Central Singapore, offering panoramic views that extend from the Central Business District to Sentosa. Designed by multi-award-winning Serie+Multiply, a joint

venture between London-based Serie Architects and Singapore-based Multiply Architects, the new scheme elevates the concept of high-rise living with a total of 774 apartments. It will support more urbanites in leading their dream city lifestyles at this prime location, in line with the Urban Redevelopment Authority's vision to develop more homes in Singapore's Central Area. A wide selection of unit types from studio apartments to penthouses, ranging in size from approximately 430 to 2,800 square feet, will be made available.

Adding to its allure, One Pearl Bank will feature a world-first – a series of sky allotment gardens arrayed vertically at one edge of each tower. With each tower

featuring an allotment garden every four storeys and each garden housing 11 plots, One Pearl Bank will have a total of 18 sky allotment gardens with close to 200 plots where residents can grow their own herbs, fruits and vegetables. The beautifully-appointed allotment gardens not only support urban farming, they offer spaces to promote community bonding. Visible from the city centre, they make a powerful visual statement on One Pearl Bank's biophilic design that integrates nature to enrich residents' quality of life. These allotment gardens are further complemented by two sky terraces and two roof gardens across the two towers and a sunken planter in every balcony to maximise the greenery on the development's facade.



Above: One Pearl Bank will feature a world-first – a series of sky allotment gardens arrayed vertically at one edge of each tower.

Right: The new scheme of One Pearl Bank elevates the concept of high-rise living with a total of 774 apartments, offering studio apartments to penthouses, ranging in size from approximately 430 to 2,800 square feet.



PROJECT DATA

Project Name: One Pearl Bank
Location: Singapore
Client: CapitaLand
Architect Firm: Serie+Multiply
Land Area: 82,376 square feet
Completion: 2023
Photos: © CapitaLand



Photo: © Ivan Dupont

Morpheus Hotel

Morpheus, a new flagship hotel for the City of Dreams resort in Macau, is designed as the world's first free-form high-rise exoskeleton.

Asia's most popular entertainment destination, Macau welcomed more than 32 million tourists in 2017, with visitor numbers increasing every year. Located in Cotai, Macau, City of Dreams is a leading integrated resort including casino, two theatres, shopping district, 20 restaurants and four hotels. It is owned and operated by Melco Resorts and Entertainment.

Informed by the fluid forms within China's rich traditions of jade carving, the Morpheus' design combines dramatic public spaces and generous guest rooms with innovative engineering and formal cohesion.

Conceived as a vertical extrusion of its rectangular footprint, a series of voids is carved through its centre to create an urban window connecting the hotel's interior communal spaces with the city and generating the sculptural forms that define the hotel's public spaces.

Linked at ground level with the surrounding three-storey podium of the City of Dreams resort, the Morpheus houses 770 guest rooms, suites and sky villas, and includes civic spaces, meeting and event facilities, gaming rooms, lobby atrium, restaurants, spa and rooftop pool, as well as extensive back-of-house areas and ancillary facilities.

The design resolves the hotel's many complex programmes within a single cohesive envelope. Zaha Hadid Architects (ZHA) was commissioned to build the hotel in 2012. At that time, foundations were already in place of a condominium tower that did not progress.

ZHA designed the Morpheus as a simple extrusion of the existing abandoned foundations; using this rectangular footprint to define a 40-storey building of two internal vertical circulation cores connected at podium and roof levels where the many guest amenities were required.



Photo: © Ivan Dupont

This extrusion generated a monolithic block making best use its development envelope that is restricted to a 160-metre height by local planning codes. This block was then 'carved' with voids.

The underlying diagram of the hotel's design is a pair of towers connected at ground and roof levels. The central atrium in-between these towers runs the height of the hotel and is traversed by external voids that connect the north and south facades. These voids create the urban window that links the hotel's interior communal spaces with the city.

Three horizontal vortices generate the voids through the building and define the hotel's dramatic internal public spaces; creating unique corner suites with spectacular views of both the atrium and the city. This arrangement maximises the number of hotel rooms with external views and guarantees an equal room distribution on either side of the building.

In-between the free-form voids that traverse the atrium, a series of bridges create unique spaces for the hotel's restaurants, bars and guest lounges by renowned chefs including Alain Ducasse and Pierre Hermé.

The atrium's 12 glass elevators provide guests with remarkable views of the hotel's interior and exterior as they travel between the voids of the building.

As one of the world's leading hotels, the Morpheus' interior spaces necessitated a high degree of adaptability to accommodate the many varying requirements of its guest amenities. The building's exoskeleton optimises the interiors by creating spaces that are uninterrupted by supporting walls or columns.

The world's first free-form high-rise exoskeleton, its rich pattern of structural members at lower levels progresses upwards to a less dense grid of lighter members at its summit. Morpheus draws on a ZHA's 40 years of research into the integration of interior and exterior, civic and private, solid and



Photo: © Ivan Dupont

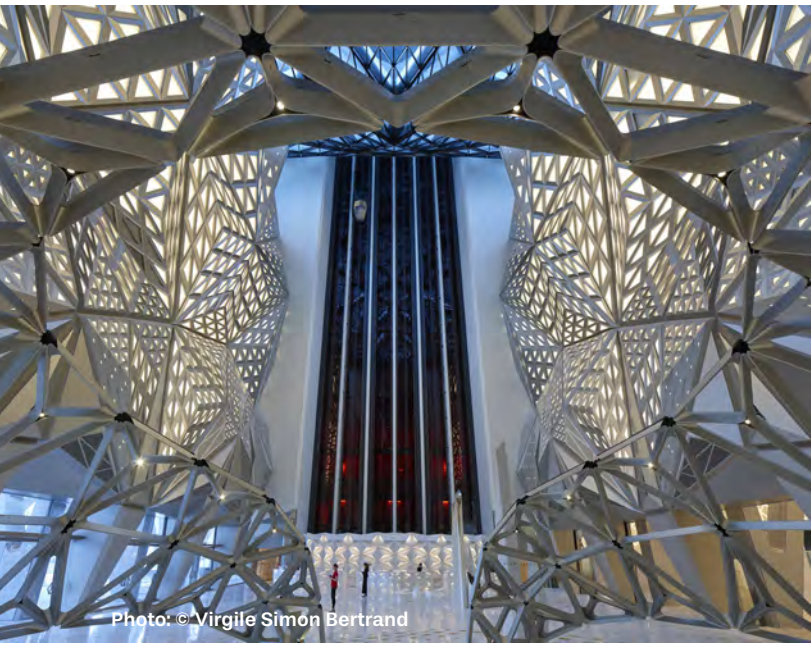


Photo: © Virgile Simon Bertrand

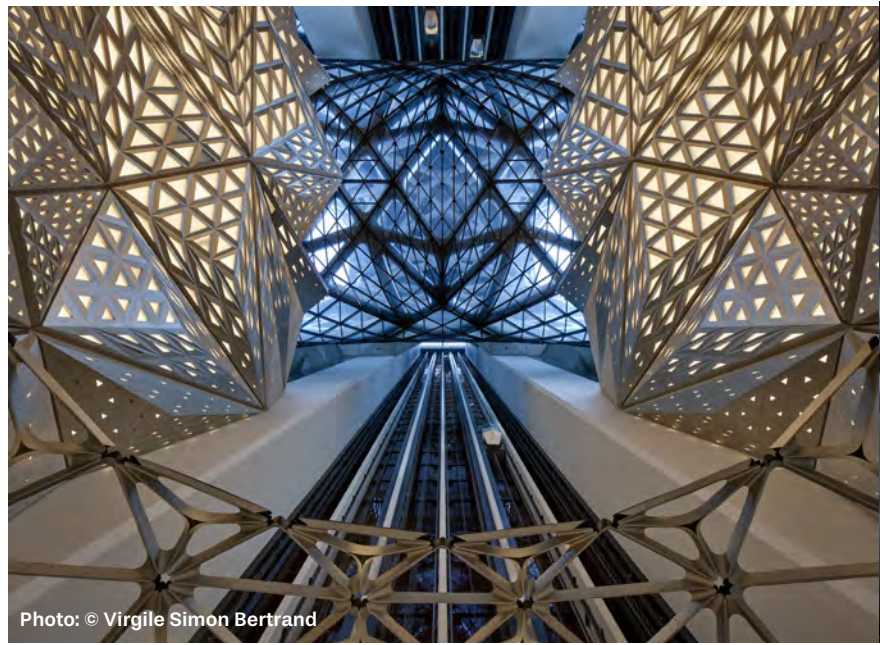


Photo: © Virgile Simon Bertrand



Photo: © Virgile Simon Bertrand

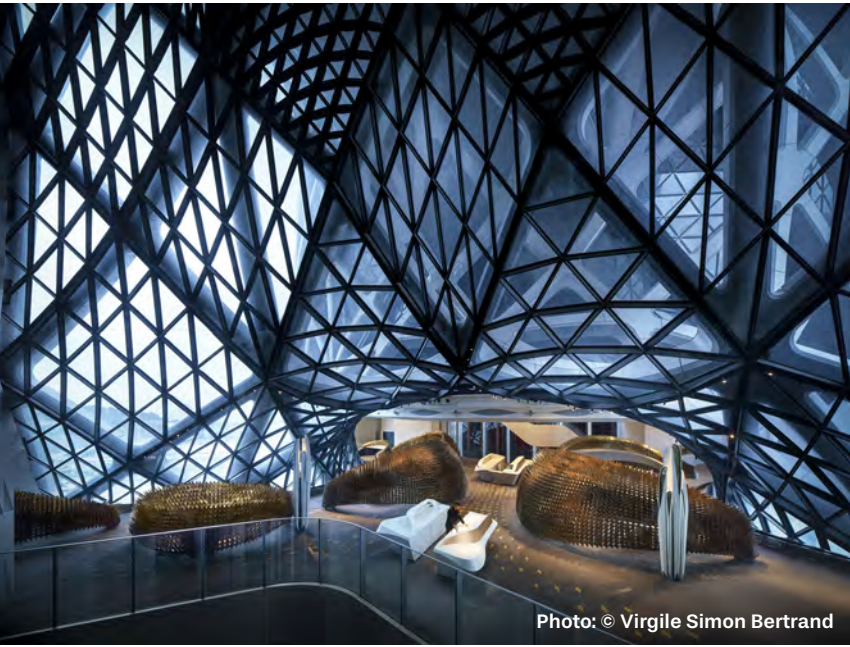


Photo: © Virgile Simon Bertrand



Photo: © Virgile Simon Bertrand



void, Cartesian and Einsteinian. Space is woven within structure to tie disparate programmes together and constantly make connections.

Viviana Muscettola, ZHA's Project Director explained, "Morpheus combines its optimal arrangement with structural integrity and sculptural form. The design is intriguing as it makes no reference to traditional architectural typologies.

"Macau's buildings have previously referenced architecture styles from around the world. Morpheus has evolved from its unique environment and site conditions as a new architecture expressly of this city."

"The expertise of all members of the Morpheus team has created new possibilities for architecture," continued Muscettola. "The comprehensive parametric model combined all of the hotel's aesthetic, structural and fabrication requirements and will radically change how our built environment is planned and constructed," added Muscettola.

Lawrence Ho, Chairman and CEO of Melco Resorts said, "From the very beginning, we shared ZHA's vision and determination to push boundaries. Morpheus offers a journey of the imagination. From the curved exterior to the dramatic interior spaces, it pleases the eye and excites the senses: a contemporary masterpiece to be enjoyed by many generations to come."

Morpheus Hotel: Environmental Engineering

Solar gain is minimised by the use of high performance glazing. The building's exoskeleton provides additional screening from the sun. The atrium's middle areas are not served by air-conditioning, only zones used by guests and staff – such as lobbies, bridges and restaurants – are air-conditioned.

Melco Resorts has applied long-life specification throughout the Morpheus Hotel to strictly limit requirements for maintenance and replacement. All the hotel's exterior panel fabrication was procured locally to the highest international standards, reducing unnecessary transportation and making full use of local expertise and equipment.

Additional active solutions have been implemented to increase energy efficiencies including the air-handling units with high efficiency variable speed water-cooled chillers and thermal wheel energy exchangers to recover energy from exhaust air. A water-to-water heat pump pre-heats domestic water, while the hotel's intelligent building management system responds in real time to usage and environmental conditions to minimise energy consumption.

PROJECT DATA

Project Name: Morpheus Hotel

Location: Cotai, Macau

Client: Melco Resorts & Entertainment

Architect Firm: Zaha Hadid Architects (ZHA)

Total Gross Floor Area: 147,860 square metres

Completion: 2018



The Burbank Studio looking north. Image courtesy of Gehry Partners, LLP. Rendering by Sora.

The Burbank Studios

Warner Bros. will expand into two Frank Gehry-designed office buildings adjacent to its main lot in the Burbank Media District.

As the media and entertainment industries continue to evolve at a rapid pace, Warner Bros. will expand into two Frank Gehry-designed office buildings adjacent to its main lot in the Burbank Media District. Warner Bros. will purchase a portion of The Burbank Studios and be the sole and long-term tenant of the two buildings. Worthe Real Estate Group and its partner Stockbridge Real Estate Fund will develop, which will combine state-of-the-art technology with a dynamic work environment in order to accelerate the Studio's competitive advantages. In recognition of Warner Bros.' 100th anniversary in 2023, the design and construction phases will be called the Second Century Project.

The announcement was made by Kim Williams, Executive Vice President and CFO, Warner Bros., Jeff Worthe, President, Worthe Real Estate Group and Frank Gehry, Partner, Gehry Partners, LLP.

"Once upon a time, Hollywood Studios had an important architectural presence in the city – they were like monuments to the movie-making process. With this project, I was trying to recapture that feeling of old Hollywood splendor," said

Frank Gehry.

"We wanted to create a 21st century version that would have a strong and unique identity for Jeff Worthe and for Warner Bros. in the centre of Burbank. We created large open floorplates with the single goal of creating the highest quality office space. From the freeway, the buildings are composed as one long sculptural glass façade that creates a single identity like icebergs floating along the freeway. On the studio side, the metal punched façade is terraced to relate to the scale and character of the existing studio buildings," added Gehry.

The 800,000-square-foot office building complex will consist of a seven-storey building of approximately 355,000 square feet and a nine-storey building of approximately 445,000 square feet. Groundbreaking is expected to take place in the Fall of 2019, with construction of both Phases expected to be completed by 2023. Occupancy of Phase I is expected in 2022, and Phase II occupancy will coincide with the Studio's centennial celebration in 2023. Reflecting Warner Bros.' commitment to sustainability and environmental

responsibility, the buildings will be built to LEED Certification standards.

As part of this transaction, Warner Bros. will purchase The Burbank Studios property, exclusive of the land on which the two Gehry buildings are to be built (which will be owned by Worthe Real Estate Group and Stockbridge). The Burbank Studios purchase provides Warner Bros. with additional production office space and eight soundstages (with room for expansion), as well as a mill building and a commissary.

PROJECT DATA

Project Name: The Burbank Studios

Location: Burbank, California, USA

Client: Warner Bros.

Architect Firm: Gehry Partners, LLP

Total Floor Area: 800,000 square foot (consisting of a seven-storey building of approximately 355,000 square feet and a nine-storey building of approximately 445,000 square feet).

Completion: Phase 1 in 2022 and Phase 2 in 2023



The Burbank Studios - The Three Towers.
Image courtesy of Gehry Partners, LLP. Rendering by Sora.



Jewel Changi Airport. Photo credit: Jewel Changi Airport Devt

Jewel Changi Airport – An Architectural Showpiece

Jewel Changi Airport, a brand new attraction at Changi Airport, officially opened its doors to the public and tourists on 17 April 2019 after four years of construction.

Designed by a consortium comprising Safdie Architects, led by world renowned architect Moshe Safdie, as well as architects from RSP Architects Planners & Engineers and Benoy, Jewel features a distinctive dome-shaped facade made of glass and steel.

According to Jewel Changi Airport Development (a joint venture between Changi Airport Group and CapitaLand), the concept for Jewel's design represents the juxtaposition of a park and marketplace. This is reflected in the lush Shiseido Forest Valley and majestic HSBC Rain Vortex that take centre stage in the complex, surrounded by over 280 retail stores and eateries.

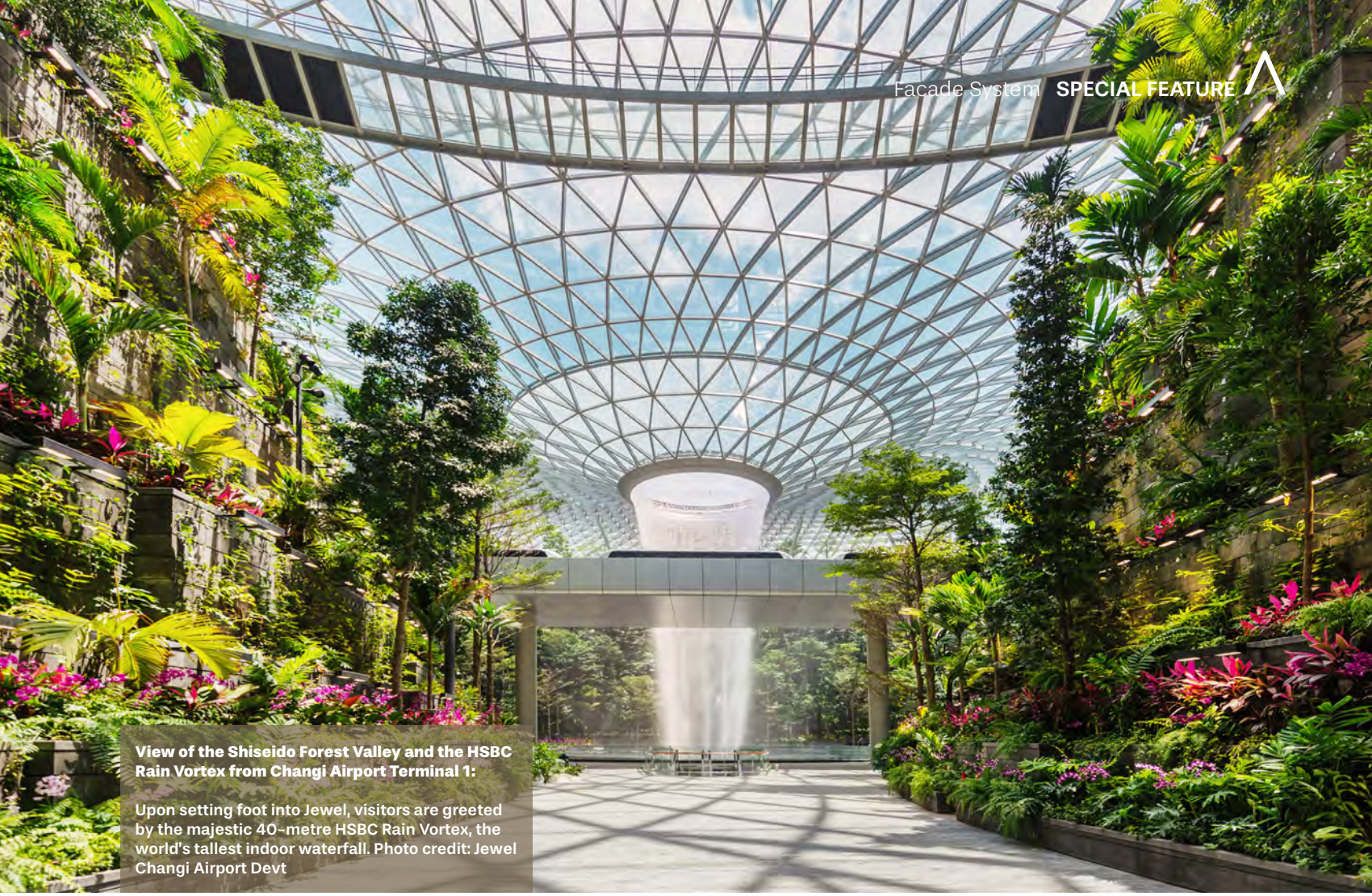
Features of the Jewel

The HSBC Rain Vortex is the world's tallest indoor waterfall with a height of 40 metres. An oculus at the apex of Jewel's

glass roof showers water down to the centre of the building. More than 10,000 gallons of water flows through the oculus per minute at peak conditions.

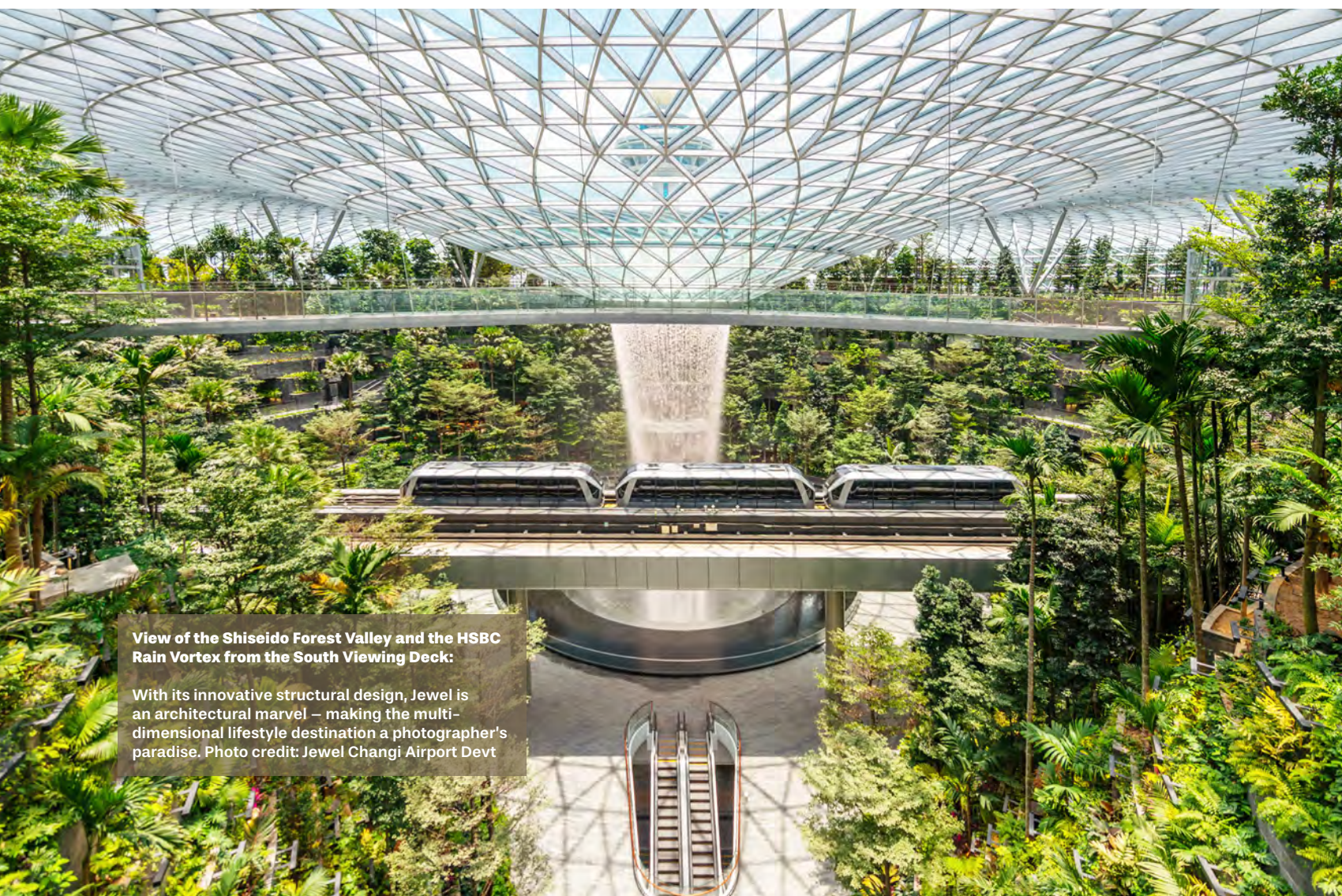
The four-storey Shiseido Forest Valley is designed as one of Singapore's largest climate-controlled indoor gardens with more than 120 species of plants. It has different themed gardens with walking trails and cascading waterfalls.

The Canopy Park is located at the topmost level of the Jewel. With a size of approximately 14,000 square metres (equivalent to the size of 11 Olympic-sized swimming pools), Canopy Park features walking trails, dining outlets and three iconic play attractions – Manulife Sky Nets, Hedge & Mirror Mazes and Discovery Slides, designed by world-renowned consultants from Britain, France, Germany, The Netherlands and Singapore.



View of the Shiseido Forest Valley and the HSBC Rain Vortex from Changi Airport Terminal 1:

Upon setting foot into Jewel, visitors are greeted by the majestic 40-metre HSBC Rain Vortex, the world's tallest indoor waterfall. Photo credit: Jewel Changi Airport Devt



View of the Shiseido Forest Valley and the HSBC Rain Vortex from the South Viewing Deck:

With its innovative structural design, Jewel is an architectural marvel – making the multi-dimensional lifestyle destination a photographer's paradise. Photo credit: Jewel Changi Airport Devt

Design approach by Safdie Architects

Jewel weaves together an experience of nature and the marketplace, to create an idea of the airport as an uplifting and vibrant urban centre, engaging travelers, visitors and the locals together under one roof and reiterating Singapore's reputation as "The City in the Garden".

Jewel Changi Airport combines an intense marketplace and a paradise garden to create a new centre – "the heart and soul" of Changi Airport. Jewel has established a new paradigm for community-centric airport design, extending the airport's principal function as a transit hub to create an interactive civic plaza and marketplace, combining airport operations with expansive indoor gardens and waterfall leisure facilities, retail, restaurants, and a hotel as well as other spaces for community activities.

This is the first time that a building has been constructed that integrates the public realm with an airport facility so closely. Entirely publicly accessible, the glass-enclosed toroidal building creates a new model for airports as a destination for community activity, entertainment and shopping.

Based on the geometry of a torus, the building is designed as a new central connector between the existing terminals at Changi Airport. Directly connected to Terminal 1 and linked to Terminals 2 and 3 via air-conditioned linkage bridges, the building serves both in-transit passengers as well as the public.

Design challenges

The curved facade and roof of the Jewel has a complex geometry. To achieve the continuous diagrid steel structure

of the Jewel, more than 9,000 pieces of glass panels, about 18,000 pieces of steel beams and over 6,000 steel nodes were used to create the facade. The facade, which weighs more than 6,000 tonnes is supported by a ring of 12-metre-tall tree-like columns and a ring beam at the edge of the roof.

The construction of the Jewel impacted airport operations of Terminal 1 as well as external road network in the vicinity of the Jewel. Hence, the project had to be completed in 15 separate phases. The construction also had to take place within the context of an operational airport, and the existing sky train track which cuts through the Jewel's site.

Application of BIM on Jewel

Building Information Modelling (BIM) was used in the conceptual, design development and construction stages of Jewel. The conceptual form for the glass dome was conceived from ground up using BIM from the onset.

The entire design development process and detailed shopdrawing review process were also BIM-based.

BIM was also used to verify that construction cranes would not obscure views or visibility from the Control Tower to the airport runways, prior to the cranes being erected. BIM was used in the Maintenance Strategy and assessing operational impact items such as traffic planning and sightline impact of construction cranes to the Control Tower.

BIM Execution Plan (BEP) was outlined at the start of the project, setting out the roadmap for BIM usage for the project. The contractor's compliance with the BEP was reviewed at regular intervals by Gehry Technologies to ascertain and guide the progress along the roadmap.



Night View of the Crystal Clouds art installation:

Created by artists Andy Cao and Xavier Perrot, this glittering installation features 16 beautiful 'clouds' that reflect weather patterns with dynamic lighting sequences. Photo credit: Jewel Changi Airport Devt



Hedge Maze at Canopy Park:

Visitors can weave their way through the tricky network of paths in Singapore's largest indoor hedge maze, located at Jewel's topmost level. Photo credit: Jewel Changi Airport Devt

Unique glass and steel facade system

Area: 23,410 square metres (approximately the size of six football fields)

Weight: More than 6,000 tonnes (equivalent to the weight of 10 Airbus A380 planes)

Components:

- More than 9,000 pieces of specially manufactured glass panels
- About 18,000 pieces of steel beams
- Over 6,000 steel nodes (pieces that encase the junction of the steel beams and glass panels)

Supporting Structures:

- A ring of 14x12 metres tall treelike columns and a ring beam at the edge of the roof.
- This allows the 4-storey high Shiseido Forest Valley and the Canopy Park, a 14,000 square metres park at the top floor, to be column-free.

Glass Panels:

- Each piece of glass is unique in size to create the necessary shape and structural support of Jewel's iconic facade.
- Custom-made to fit into a specific grid based on the functional design of facade.
- Made of high-performance, triple Low-E architectural glass with the dual ability to transmit light to enable the vast landscaping in Jewel to thrive and reduce heat to ensure sustainable cooling of the complex's interior.
- Each piece of glass weighs between 250 kg and 300 kg.

Steel Nodes & Steel Beams:

- Every piece of steel node is unique and custom-made in Germany.
- The nodes are manufactured using the Computer-Aided Design and Manufacturing (CAD/CAM) applications from steel bars to achieve the highest level of accuracy and prevent distortion caused by welding during installation.

Installation:

- Given the unique dimensions of each glass panel, the facade installation warrants precise coordination to ensure that each panel is fitted into the 'grid' that it is designed for.
- The process started from the oculus (opening of the HSBC Rain Vortex in the roof) outwards, towards the edge of the Gateway Gardens.



Discovery Slides at Canopy Park:

A structural playscape with 4 slides – 2 tube slides and 2 surface slides. This playground offers panoramic views of the Canopy Park at its 6.5-metre high viewing platform. Photo credit: Jewel Changi Airport Devt





Topiary Walk at Canopy Park:

A photo-friendly enclave set within the Canopy Park, this walk features creative topiary art in the shape of life-size animals. Photo credit: Jewel Changi Airport Devt



Manulife Sky Nets at Canopy Park:

Manulife Sky Nets is a first-of-its-kind attraction customised specially for Jewel, combining two concepts – a walking net and a bouncing net. The Manulife Sky Nets – Walking will take visitors on a thrilling walk, over a void that looks down 25 metres to Level 1. For an adrenaline-pumping experience, take a leap on the Manulife Sky Nets – Bouncing and discover the 8-metre high lookout point that features an aerial view of the entire Canopy Park. Photo credit: Jewel Changi Airport Devt

PROJECT DATA

- Project:** Jewel Changi Airport
- Project Cost:** SGD 1.7 billion
- Location:** 78 Airport Boulevard, Singapore
- Client:** Jewel Changi Airport Development (a joint venture between Changi Airport Group and CapitaLand)
- Design Consultant:** Safdie Architects
- Architect:** RSP Architects Planners & Engineers
- Site Area:** 38,500 square metres (3.5 hectares)
- Gross Floor Area:** 135,700 square metres
 - Facilities for airport operations: 19,400 square metres
 - Indoor gardens & attractions: 21,100 square metres
 - Retail: 90,000 square metres
 - Hotel: 5,200 square metres (130 rooms)
- Number of floors:** 10 (five above ground and five basement storeys)
- Retail:** 7 levels, 280 retail outlets
- Car Parks:** 2,500 lots (Basement 2 to Basement 5)
- Awards:**
 - 2018: BCA Universal Design Mark Award – Gold^{Plus} (Design)
 - 2016: (1) The International Architecture Award – Best New Architecture (2) BCA Green Mark Award – Gold^{Plus} (3) MIPIM Asia Award – Silver
- Commencement:** 2014
- Completion:** 2019

“Jewel is an architecture marvel with one-of-its-kind design features, hence its challenges are also atypical.”

– An interview with Chris Tan, Director, RSP Architects Planners & Engineers



Chris Tan. Photo credit: RSP Architects Planners & Engineers

To give us a better understanding of what went behind the making of the Jewel, Chris Tan, Director, RSP Architects Planners & Engineers, tells us the design approach, construction challenges and green features.

SEAB: The Jewel Changi Airport (Jewel) has finally opened after over four years of design and construction. As an architect who was directly involved in the Jewel, can you briefly share with us your experience of working on the project?

CHRIS: It is indeed an honour for RSP to be the executive architect and civil & structural engineer for an iconic project like Jewel which has captured the attention of the world. To successfully complete the project within the stipulated time frame, witness the plans come to fruition, and see the communities – whether locals or foreigners, young or old – enjoying the spaces which we have played a part in creating, have been truly rewarding.

Jewel is an architecture marvel with one-of-its-kind design features, hence its challenges are also atypical. Achieving the complex geometry of the curved roof and continuous diagrid structure of the facade which is made of more than 9,000 pieces of glass panels, about 18,000 pieces of steel beams and over 6,000 steel nodes is an architecture and engineering feat in itself.

SEAB: The Jewel is designed by a consortium comprising of Safdie Architects, RSP Architects Planners & Engineers and Benoy. What role did RSP

play in the project?

CHRIS: RSP is the executive architect and civil & structural engineer for Jewel. The role encompasses the statutory, contractual, and design development efforts, working in collaboration with Safdie Architects. We were also entrusted to administer the building contract between the client and main contractor.

RSP's vigilant planning of partial TOP phases as well as the support and commitment from the team has contributed to the timely completion of Jewel. Construction of Jewel impacts airport operations and the road network in the vicinity of Jewel; hence the project cannot be completed in one simple phase, but in 15 phases. The partial TOP phases were required to minimise disruption to airport operations during construction. RSP also planned the roadmap for the various clearances and timeline for authorities' inspections.

To establish the benchmark for quality and workmanship control, RSP required the contractors to construct full-scale mock-ups of key design elements off site. It was done to establish the visual intent, quality and workmanship of the contractors, and to give them first-hand experience of how to put things together.

A key success factor for the completion of Jewel was the close collaboration with the client, consultants and contractors



"A key success factor for the completion of Jewel was the close collaboration with the client, consultants and contractors over the duration of the project and the commitment to deliver their best for Jewel." – Chris Tan

Photo credit: RSP Architects
Planners & Engineers

over the duration of the project and the commitment to deliver their best for Jewel.

To achieve the design vision of Jewel, RSP worked collaboratively with the other consultants as a team to resolve challenges and provide solutions which are both aesthetic driven as well as practical and safe. This meant active consultations with authorities and continuous discussions with Safdie Architects for compliant and integrated solutions.

Building Information Modelling (BIM)

was also an invaluable tool to successfully completing Jewel, and the entire project team was committed to using BIM from the outset.

SEAB: What are the green or sustainable features of the Jewel?

CHRIS: The extensive greenery and vertical green walls are prominent features of Jewel, and echo Singapore's 'city in a garden' reputation. The total amount of space devoted to landscaping in Jewel measures some 21,100 square metres.

Jewel's facade is made of high-performance, triple Low-E architectural glass with the dual ability to transmit light to enable the vast landscaping in Jewel to thrive, and reduce heat to ensure sustainable cooling of the complex's interior. Each piece of glass has a 16-mm air gap to insulate against external noise emitted from aircraft.

Rainwater funneled into the Rain Vortex is harvested for building services and landscape irrigation systems – another sustainable feature of Jewel.

“Our mission is to create bespoke, world-class design solutions that best suit the needs of local people.”

– An interview with Keith Griffiths, Chairman and Global Design Principal, Aedas



Keith Griffiths

With 12 global offices across the world and numerous prestigious awards under its belt, Aedas has made its mark as a top architectural firm

with a deep social and cultural understanding of the communities they are designing for. In this issue, Keith Griffiths, Chairman and Global Design Principal, Aedas, tells SEAB the design philosophy of the firm and the concepts behind some of their award-winning projects. Photos copyright of Aedas.

SEAB: How would you define the design philosophy of Aedas?

KEITH: At Aedas, we believe that great design can only be delivered by designers with a deep understanding of the cities and communities they are designing for. We have a fascination for and high regard for the social and environmental aspects of different cultures and communities. They are the reason that the world is unique and exciting to experience. Aedas projects celebrate the uniqueness and divergences of our cities and peoples.

SEAB: What is so unique about your projects that set it apart from others?

KEITH: As one of the top architectural firms in the world, we do not differentiate ourselves with size or revenue – in fact they are both the by-products of what we sought.

It is our mission to create bespoke, world-class design solutions that best suit the needs of local people. All of Aedas' designs reflect our firm belief

that great design can only be delivered by people with a deep social and cultural understanding of the communities they are designing for. By embedding the historic cultures, legends and values of our Asian cities into unique and memorable architectural forms, we create lasting and valuable icons for the cities and citizens to be proud of.

This is why we have set up 12 global offices across the world and created a global platform for creative excellence in design to enable some of the world's most talented designers to plug into the latest information and delivery systems they need to produce truly world-class design solutions all over the world. All our clients, no matter they are in Russia, London, Dubai or Beijing, can benefit from our collective expertise.

SEAB: Which type of projects does Aedas specialise in?

KEITH: We specialise in high-density, high-rise mixed commercial

developments. We believe in the power of architecture to transform our high-density city lives to a successful work-live-recreate dynamic. We create environments for varied, convenient and sustainable lifestyles for high-density Asian cities.

SEAB: What are some of your favourite projects by Aedas?

KEITH: Aedas celebrates its best designs by a rolling accolade of the "Top 40" designs, covering mixed-use, office, retail, hotel, residential, infrastructure and other sectors; and they are all my favourites. I am particularly proud to see the completion and opening of the Hong Kong West Kowloon High-speed Rail Station and Hong Kong-Zhuhai-Macao Bridge Hong Kong Port Passenger Clearance Building. These magnificent buildings have been many years in the making and are two of the three new gateways to Hong Kong, which Aedas has been entrusted with designing.

**"We create environments for varied, convenient and sustainable lifestyles for high-density Asian cities."
– Keith Griffiths**

Commercial Bank
Headquarters Project
in Taichung, Taiwan.





Hong Kong-Zhuhai-Macao Bridge Hong Kong
Port Passenger Clearance Building

**"We are creating successful contemporary urban environments, with planning for the future, that are sustainable in real terms by sharing our international knowledge and through rigorous analysis by our local teams."
– Keith Griffiths**

Hong Kong West Kowloon Station is one of the largest and busiest underground train stations in the world. Handling passengers through border controls, this station is more akin to an airport than a mere underground train station. The approximate 400,000 square metres of usable floor area, however, ensures that the flow of the passengers is as smooth as possible. Designed by Andrew Bromberg at Aedas, the station introduces over three hectares of 'green plaza' to the site. The outside ground plane slopes down to the hall and the roof structure above gestures upwards toward the harbour. The resulting space is a 45-metre high



volume, whose energy and focus is directed towards the south façade, Hong Kong Central skyline and Victoria Peak beyond. The interior of the hall is almost like a forest, with leaning steel columns supporting a giant floating roof and lifting up 4,000 glass panels to bring in natural daylight into the building and a glimpse of the city even from the lower levels of the station.

Hong Kong-Zhuhai-Macao Bridge Hong Kong Port Passenger Clearance Building is designed by Aedas in joint venture with Rogers Stirk Harbour + Partners. It is built on a new 150-hectare artificial island reclaimed from the

open waters and house the customs and immigration facilities for travellers leaving and entering Hong Kong by the bridge. The building is constantly filled with movements – people arriving and leaving by buses, cars and taxis, and travellers waiting to get immigration clearance. The simple, clear circulation through the facility and the undulating flow of surrounding waters is reinforced by the waveform roof, enhancing legibility and providing intuitive wayfinding. Movement through the building is punctuated with four double height voids over reflecting pools, which allow natural daylight to penetrate all levels of

the building and ensure there is a visual connection between Departures on the first floor and Arrivals on the ground floor. These voids and water pools further reinforce the clarity of wayfinding. The elegant modular roof form ideally lends itself to offsite pre-fabrication and has enabled an efficient construction process achieving a very high level of quality. Building sections were pre-fabricated in the factory, transported by ship to the reclaimed island and railed into position.

SEAB: Aedas has won many awards over the last few years. Which ones do you feel proud of and why?



KEITH: Benchmarking our designs internationally, Aedas has received tens of international design awards each year. For example we won 63 awards in 2018 and 42 awards up to May in 2019, including the prestigious World Architecture Festival Awards, MIPIM/The Architectural Review Future Project Awards, Leading European Architects Forum Awards, MIPIM Asia Awards, AIA International Region Design Awards, International Council of Shopping Centers Awards and International Property Awards.

I am pleased that last year our Commercial Bank Headquarters Project in Taichung, Taiwan, topped competitions from around the world and won the Future Projects – Commercial Mixed-use category. It is a 200-metre high tower located in the commercial centre of Taichung city, comprising headquarters office space for Taichung Commercial Bank and luxury hotel accommodation. The design concept originates from the Chinese character '中' (literally meaning 'centre') in the logo of the Taichung Commercial Bank. Instead of stacking all functions in a singular tower, the design creates two 'separate' towers with a



vertical void in the middle to connect them and capture the large facilities. A series of 'floating' transparent glass boxes for large functions such as exhibition areas, sky gardens, conferencing facilities, a ballroom and a swimming pool is situated inside the void to enrich the building shape and create an eye-catching feature along the main road. The rooftop terrace features a restaurant and VIP club with outdoor landscaped terrace, providing a spectacular balcony with magnificent city view.

The Beacon, a hotel development in Hong Kong, has also bagged nine awards in 2018. Drawing inspirations from the city's post-war structures, its design sets an excellent example of contemporary interpretation of traditional architecture. In the early post-war years, it was common to create illegal iron balconies for residential units in Mongkok, a hyper-dense neighbourhood in Hong Kong, to maximise view and area. The building design reinterprets these structures in a modern way – the irregular protrusions create unobstructed views for each unit. Also inspired by the home gardens which

“Benchmarking our designs internationally, Aedas has received tens of international design awards each year.” – Keith Griffiths

people created on those iron balconies, a green wall on the podium façade is designed to further connect the building with the historical cityscape and offer more greenery at the pedestrian level.

SEAB: In view of green building movement and climate change, how challenging has it become for Aedas to design buildings today?

KEITH: The main issue and challenge is to focus on environmental value and green principles, not only on the buildings' aesthetics when designing the buildings. Each increasing factor of

climate change, energy consumption and pollution must be taken into account on a scale not seen before.

Aedas designs places across the world that respond to these challenges. We are creating successful contemporary urban environments, with planning for the future, that are sustainable in real terms by sharing our international knowledge and through rigorous analysis by our local teams. To achieve this goal, we begin each project by thoroughly studying the needs of the client and analysing the site until we have gained a thorough appreciation of the issues and challenges.



Hong Kong West Kowloon Station (Photo by Edmund Sumner)

Creating a greener world with energy-efficient buildings

Text by Leong Chee Khuan, Area Managing Director for South Asia and General Manager for Grundfos Pumps Sdn Bhd.



Leong Chee Khuan

Malaysia is currently experiencing rapid economic and industrial development, which is driving the country's urbanisation rate. By 2030, Malaysia is projected to have an urban share of more than 80 per cent, similar to the current level of urbanisation in Canada and the United States, with Kuala Lumpur alone expected to have a population of almost 10 million¹.

A key element of Malaysia's urban development is the constructing of countless buildings. Buildings, especially high-rise ones are notoriously energy-intensive which has negative consequences on the environment. They account for more than 40 percent of the world's total energy consumption and for 24 percent of CO² emissions², using energy for heating, ventilation, lights, water and cooling.



Installation of Grundfos Hydro MPC booster systems. Photo: © Grundfos Pumps Sdn Bhd



With the onset of climate change and our natural resources dwindling, it has become imperative for us to examine how we can reduce the impact of our built environment. Notably, these challenges have driven the trend of green buildings – eco-friendly buildings that focus on efficient use of resources such as water and energy. Initiatives such as Malaysian Green Building Confederation's Green Building Index (GBI) rating system, help set a benchmark for sustainability efforts by businesses and developers.

Green architecture is not only beneficial to the environment. Though there are still some companies that believe that driving green building initiatives and solutions could be a costly endeavour, going green actually makes business sense. Last November, the Malaysian Minister of Energy, Green Technology, Science, Climate Change and Environment, Yeo Bee Yin remarked that the country stands to save a minimum of RM 47 billion over the next 15 years if it becomes more energy efficient, which has led to plans to retrofit roughly 5,000 government-owned buildings nationwide to jumpstart the energy efficiency sector.

However, we need to look beyond just planting trees or incorporating energy efficient office design. We need to also review the entire hardware of buildings to create greater efficiency in all aspects. For example, pumps control the water, wastewater and cooling system of a building, operating and using energy year-round. There is also a major opportunity to reduce water losses along the supply chain. By using efficient pumps, buildings can go a long way in meeting sustainability as well as energy and water efficiency standards.

Pump manufacturers like Grundfos have been pursuing digitalisation as a means to incorporate intelligence into its products and make them more intuitive and connected, in turn performing more efficiently. The result is iSolutions – a range of products with a focus on connectivity, intelligent monitoring and adjustment features, ensuring energy optimisation and high operational reliability throughout a building's water network.

Demonstrating this intelligence in a building's cooling system, Grundfos' range of MAGNA3 pumps are developed to automatically analyse a cooling system, find its optimum setting, before continuously adjusting its operation to changes in demand. This ensures a cooling system that offers users optimum comfort with minimum energy consumption.



Grundfos' range of MAGNA3 pumps. Photo: © Grundfos Pumps Sdn Bhd

Lastly, greening buildings also goes beyond energy-efficient components working in silos – it is about how an entire system can work together cohesively to ensure the optimisation of resources. Online management systems such as the Grundfos Remote Management intelligently manages water flows through the interconnectivity of pumps, sensors and meters on an internet-based system, where changes in a pump's performance and energy consumption can be monitored and tracked.

What companies and developers need to realise is that while advanced intelligent technology can cost more upfront, the benefits in the long run will exceed the upfront investment. They need to focus on the Lifecycle costs rather than the initial cost of the products. As these innovations are further developed on a larger scale and with affordable distribution, cost will be less of a barrier in the near future, making Malaysia's green goals all the more attainable.

¹Martin Prosperity (2017). *The Rise of the Urban Creative Class in Southeast Asia*.

²United Nations Environment Programme.

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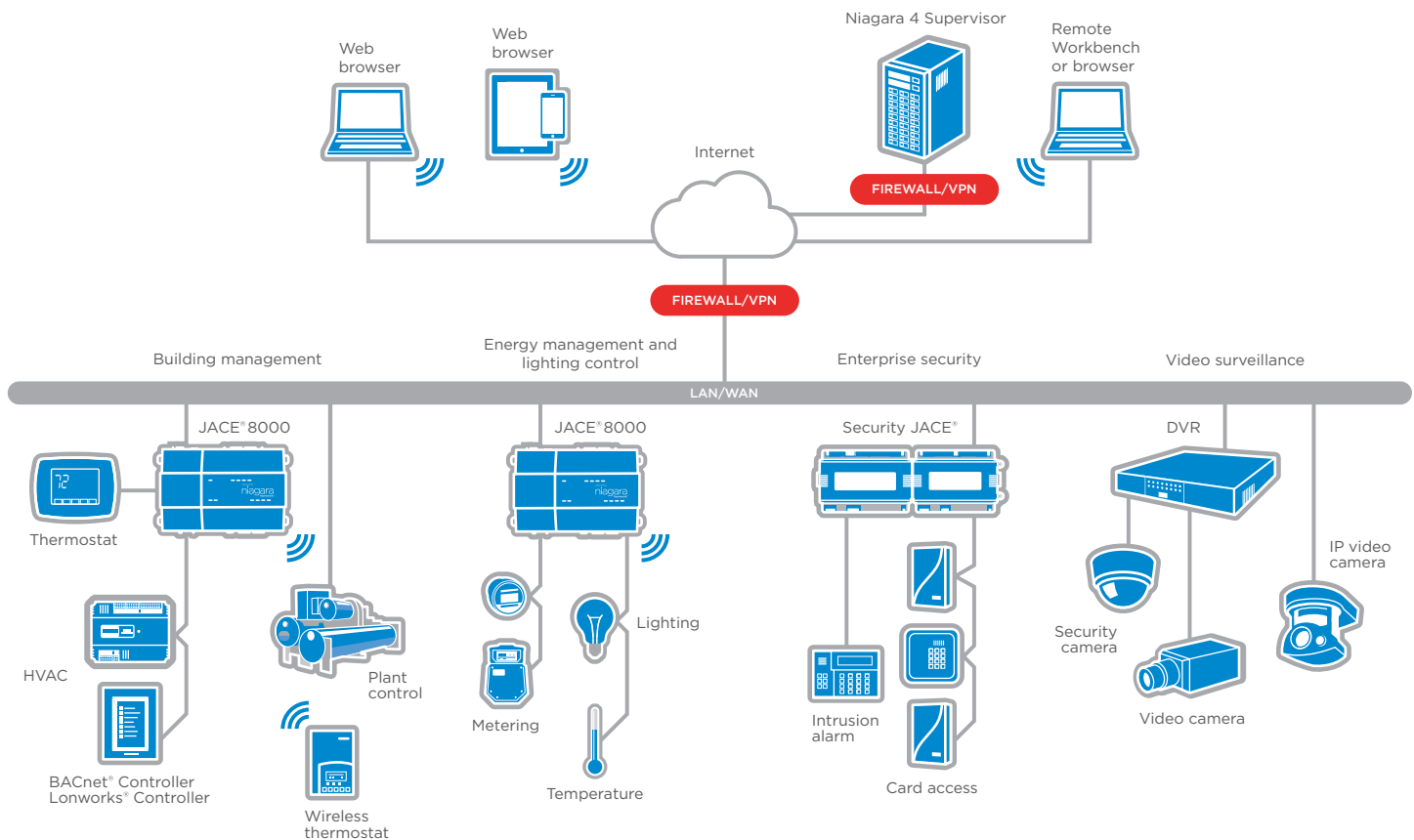
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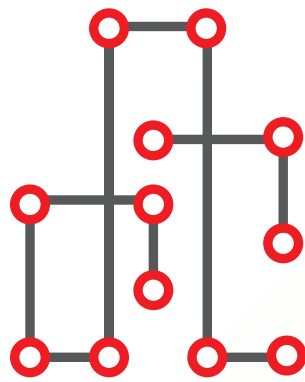
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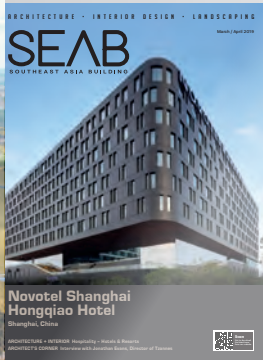
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See us at following upcoming events!

Event	Date	City	Country	Website	Page
IBEW 2019	3 - 6 Sept 2019	Singapore	Singapore	www.ibew.sg	91
Cambuild 2019	18 - 20 Sept 2019	Phnom Penh	Cambodia	www.cambuildexpo.com	90
ArchXpo 2019	1 - 3 Oct 2019	Singapore	Singapore	www.archxpo.com.sg	87
Building Facade & Fixtures 2019	9 - 12 Oct 2019	Jakarta	Indonesia	www.buildingfacadefixtures.com	89
Myanbuild 2019	28 - 30 Nov 2019	Yangon	Myanmar	www.myanbuild.net	92
Asia Infrastructure 2020	14 - 16 Jan 2020	Kuching	Malaysia	www.ambtarsus.com/calendar-malaysia.htm	88

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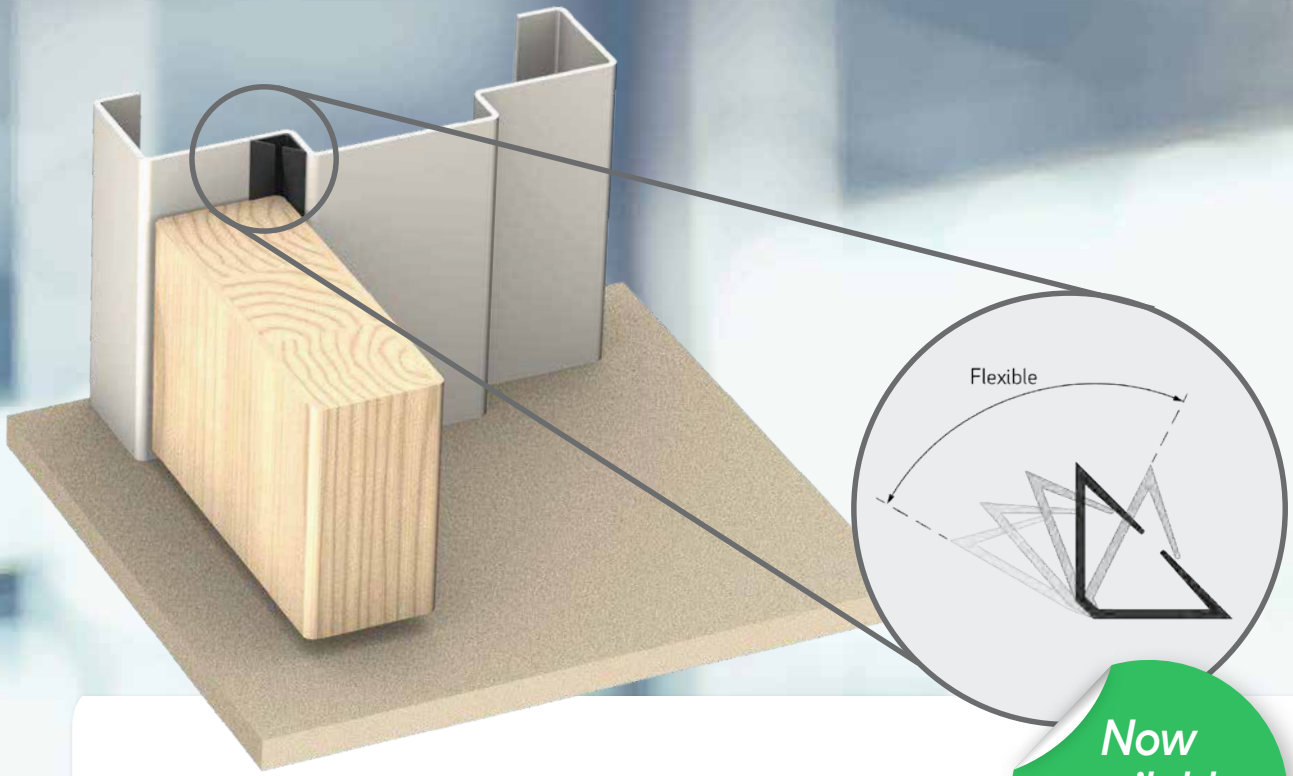
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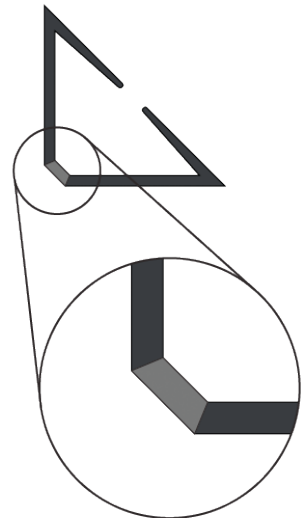
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