

Annex C: Factsheet on Built Environment Leadership Award



The Award

The BCA Built Environment Leadership Award was introduced in 2009 to recognise outstanding industry organisations such as developers, consultants (Architectural, Structural and M&E) and builders, which have demonstrated excellence and leadership in building a safe, high quality, sustainable, friendly and productive built environment in Singapore. It also aims to serve as a comprehensive roadmap for the building and construction industry to level up and spur these organisations towards higher degree of professionalism with enhanced capabilities and competitiveness.

Award Categories

The Awards will be given out for the following six categories:

1. Developer / Owner
2. Architectural Consultant
3. Structural Consultant
4. M&E Consultant
5. Multi-Disciplinary Consultant
6. Builder

Assessment Criteria

Applicants must meet the following eligibility criteria to be considered for the Awards:

1. Achieve an overall score of at least 70 points (Gold), 80 points (Gold Plus) or 90 points (Platinum) based on the evaluation criteria established for the Awards. BCA also introduced a higher award in 2018, the Platinum Star, for applicants that fulfilled the following criteria:
 - Meet all requirements of a Platinum award; and
 - Held the Platinum award for at least five years

2. Applicants must not have any significant issues arising from their business / activities in the areas of building safety, quality, sustainability and user-friendliness that could lead to adverse publicity or tarnish the Awards' reputation.

BCA BUILT ENVIRONMENT LEADERSHIP AWARD 2019 WINNERS

Award Type	Company	Category
Platinum Star	Tiong Seng Contractors (Private) Limited	Builder
Gold ^{PLUS}	KTP Consultants Pte Ltd	Structural Consultant
Gold ^{PLUS}	Meinhardt (Singapore) Pte Ltd	Multi-Disciplinary (Structural and M&E Consultants)
Gold ^{PLUS}	Squire Mech Private Limited	M&E Consultant
Gold ^{PLUS}	Straits Construction Singapore Pte Ltd	Builder
Gold ^{PLUS}	Surbana Jurong Consultants Pte Ltd	Multi-Disciplinary (Architectural, Structural and M&E Consultants)
Gold ^{PLUS}	WSP Consultancy Pte. Ltd.	Multi-Disciplinary (Architectural, Structural and M&E Consultants)

KEY ACHIEVEMENTS (2016-2018)

System

Innovation Class, People Developer, ISO 9000 Quality Management System, ISO 14000 Environmental Management System and OHSAS 18000 Occupational Health and Safety Management System.

Result

- **BCA Awards**

Construction Productivity Awards, Construction Excellence Awards, Building Information Modelling (BIM) Awards, Green Mark Awards, Green & Gracious Builder Award, Design & Engineering Safety Excellence Awards, etc.

- **Other Local Awards**

Singapore International Chamber of Commerce (SICC) – Most Scalable Collaboration Award, SCAL Productivity and Innovation Award.

- **Innovations**

(a) Design for Manufacturing & Assembly (DfMA) – successfully developed its very own PPVC solution (patented) and PBU solution, incorporating advanced ultra-high performance ductile concrete.

(b) Integrated Digital Delivery (IDD) – leverages on its in-house developed digital capability to further embrace IDD, including successfully developed an innovative platform enabling ordering of steel rebar and real-time updating on progress of workflow through BIM.

(c) Innovative Construction equipment and methods – piloted many innovative construction equipment and methods in its projects.

- **International Awards**

RoSPA Occupational Health and Safety Awards, building SMART (Hong Kong) BIM Award, buildingSMART International Award, etc.



Member of the Surbana Jurong Group

KEY ACHIEVEMENTS (2015-2018)

System

ISO 9000 Quality Management System, ISO 14000 Environmental Management System and OHSAS 18000 Occupational Health and Safety Management System.

Result

- **BCA Awards**

Design and Engineering Safety Excellence Award, Construction Excellence Awards, Green Mark Awards, Construction Productivity Awards, Building Information Modelling (BIM) Awards, etc.

- **Other Local Awards**

President's Design Award, SIA Architectural Design Awards, NParks Skyrise Greenery Awards, HDB Awards, etc.

- **Innovations**

(a) Adoption of deep seated Innovative Building Information technology employing Virtual Design & Construction and delivery of BIM projects allowing seamless and high productivity DfMA continuation from design to construction of projects.

(b) Achieving the tallest steel PPVC Construction in Singapore on the Nanyang Crescent Hall of Residences NTU at the time of completion in 2017. This is a ground breaking technology in the built environment sector that is sustainable and productive on a large scale basis.

(c) Innovative, cost effective and robust transfer structures incorporating redundancy and seismic design in high-rise tall buildings in multiple award winning iconic projects (E.g. The Scotts Tower and the Oasia Downtown Hotel).

- **International Awards**

FIABCI PRIX d'Excellence Award, Council on Tall Buildings and Urban Habitat (CTBUH) Award, etc.



KEY ACHIEVEMENTS (2016-2018)

System

ISO 9000 Quality Management System, ISO 14000 Environmental Management System and OHSAS 18000 Occupational Health and Safety Management System.

Result

- **BCA Awards**

Design and Engineering Safety Excellence Awards, Construction Excellence Awards, Construction Productivity Awards, Green Mark Awards, etc.

- **Other Local Awards**

Singapore Apex Corporate Sustainability Awards, IStructE Singapore Structural Awards, etc.

- **Innovations**

(a) A new Innovative hybrid steel-concrete system, namely Form-Prefabricated Steel Reinforced Concrete (F-PSRC) columns & Thin Steel-plate Composite (TSC) Beams adopted at JTC Logistics Hub project.

(b) Mass Engineered Timber (MET) Steel composite structure implemented at SMU-X project.

(c) Smart buildings – Operation Centric Smart Control implemented at SMU-X project.

- **International Awards**

ACES Awards for Asia's Most Influential Companies, Singapore Apex Corporate Sustainability Awards, etc.



KEY ACHIEVEMENTS (2014-2018)

System

ISO 9000 Quality Management System, and ISO 14000 Environmental Management.

Result

- **BCA Awards**

Construction Excellence Awards, Construction Productivity Awards, Green Mark Awards, Building Information Modelling (BIM) Awards, SGBC-BCA Sustainability Leadership Awards, etc.

- **Other Local Awards**

FISAC Fire Safety Design Excellence Award, etc.

- **Innovations**

(a) Kinetic Wireless Switch – battery free and eliminates wiring and conduits for lighting switches.

(b) Lab Demand Control Ventilation (DCV) – vary the air change according to the chemical level in the laboratory.

(c) BIM-centric HVAC ETTV & SpHA Sprinkler full hydraulic systems – perform M&E designs and calculations in accordance to Singapore's Code of Practices.

- **International Awards**

ASEAN Energy awards, Asia Green Building Awards, MIPIM Asia Award, CTBUH Best Tall Building Award, etc.

GOLD^{PLUS}



KEY ACHIEVEMENTS (2016-2018)

System

ISO 9000 Quality Management System, ISO 14000 Environmental Management System and OHSAS 18000 Occupational Health and Safety Management System.

Result

- **BCA Awards**

Quality Excellence Awards, Construction Excellence Awards, Green Mark Award, Construction Productivity Awards, Green Mark Awards, Green & Gracious Builder Awards – Star, BIM Awards, etc.

- **Other Local Awards**

SCAL- Productivity and Innovation Awards, MOM Dormitory Award, etc.

- **Innovations**

(a) Defect Inspection and Rectification Management (DIRM) - adopted for unit inspection, during the Defects Liability Period (DLP) and post DLP phase. It is a cloud based solution where all key stakeholders on the project could access information, lodge defects and check the status of the defects real-time.

(b) Lean Construction Management (LCM) - use of Lean PlanDo tool from Lean Station. It is currently being implemented at several projects i.e. JTC Furniture Hub (JTCFH), Yio Chu Kang EC, Anchorvale EC and Nexus International School (NISS).

(c) Creative application of Virtual Design and Construction (VDC) - the VDC framework consists of Integrated Concurrent Engineering (ICE), Project Production Management (PPM), Building Information Modelling (BIM) and Metrics.

- **International Awards**

RoSPA Occupational Health & Safety Awards.



KEY ACHIEVEMENTS (2016-2018)

System

ISO 9000 Quality Management System, ISO 14000 Environmental Management System and OHSAS 18000 Occupational Health and Safety Management System.

Result

- **BCA Awards**

Design and Engineering Safety Excellence Awards, Construction Excellence Awards, Construction Productivity Awards, Universal Design Mark Awards, Green Mark Awards, etc.

- **Other Local Awards**

HDB Design Awards, HDB Engineering Awards, HDB Innovative Engineering Awards, LEAF Awards, SILA Awards, MND Minister Award (Team), etc.

- **Innovations**

(a) Housing Configurator – the use of computational BIM to carry out manual process and design work.

(b) Interactive Immersive Virtual Reality System (IVRS) - bringing Virtual Reality to the next stage.

(c) Digital Facilities Management- integration of BIM and SMART FM technologies.

- **International Awards**

BCI Asia Top 10 Architects, Malaysia Landscape Architecture Awards, etc.



KEY ACHIEVEMENTS (2016-2018)

System

ISO 9000 Quality Management System, ISO 14000 Environmental Management System and OHSAS 18000 Occupational Health and Safety Management System.

Result

- **BCA Awards**

Construction Excellence Awards, Construction Productivity Awards, Green Mark Awards, BCA BIM Award, etc.

- **Other Local Awards**

URA Architectural Heritage Award, ACES Design Excellence Awards, LEAF Award, FuturARC Green Leadership Award, etc.

- **Innovations**

(a) Leveraging on DfMA for higher quality and productivity – designed MEP modules.

(b) Energy efficient ACMV systems - Dual function air-con ducts, jet slots diffusers, free cooling from heat pumps, etc.

(c) Enhanced Safety and user friendly designs – Smart nurse call system for healthcare facilities, smart carpark system integrated with interactive carpark kiosks, etc.

- **International Awards**

Building Better Healthcare Award (UK).

- **International Awards**

Building Better Healthcare Award (UK).