

Record 34 projects win BCA's accolades

They bag awards for overcoming difficult site conditions and for superior workmanship

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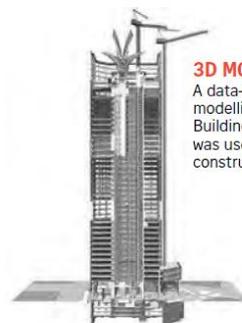
Precision and productivity

CapitaLand's office building CapitaGreen is one of two projects to get the highest Platinum accolade in the Building and Construction Authority's Construction Productivity Awards this year. From design to construction, innovative technologies allowed for greater precision and shorter building time.



WIND FUNNEL

The 45m-tall wind funnel is carefully oriented to catch the wind, drawing the cool air down into the core of the building. Parts of its frame were pre-assembled at a factory, resulting in less time needed to raise the funnel on-site.



3D MODELLING

A data-heavy virtual 3D modelling method, known as Building Information Modelling, was used to ensure precise construction of the building.



PRECAST TO SAVE TIME

Extensive use of precast parts such as beams and columns contributed to a total savings of 5.7 months' worth of work on the building's superstructure.



BIGGEST BORED PILES

At 3.5m in diameter compared to the usual 1.5m, the bored piles used in the foundation are the largest in Singapore. This reduced the total number of piles needed, thus cutting construction time.

HIGH-STRENGTH CONCRETE

Using high-strength G100 concrete meant that less concrete was required, precast columns were smaller and less steel was needed, resulting in time savings in fabrication and installation.

Source: BUILDING AND CONSTRUCTION AUTHORITY, CAPITALAND, TAKENAKA CORPORATION Photos: CAPITALAND, TAKENAKA CORPORATION STRAITS TIMES GRAPHICS

A record 34 projects have been recognised by the Building and Construction Authority (BCA) for overcoming challenging site conditions or delivering stellar workmanship.

They received 16 awards and 18 certificates of merit under the annual Construction Excellence Award, which is now in its 30th year.

“The record number is a testament to the progressive improvements made by builders,” said Construction Excellence Award assessment committee chairman Lai Huen Poh, who is also the managing director of RSP Architects Engineers and Planners.

Among this year's winners is 368 Thomson, the first private residential project to achieve the highest Star rating under the national Construction Quality Assessment System (Conquas) framework, administered by the BCA.

Other winners include Samsung C&T Corporation and Ssangyong Engineering and Construction, which were both working on contracts for the Marina Coastal Expressway.

The two firms overcame challenging conditions to build the road tunnels: deep layers of soft marine clay, and an existing seawall left from previous reclamation work, respectively.

Separately, efficiency-boosting methods such as precise 3D modelling and the extensive use of precast parts helped nine projects to bag the BCA Construction Productivity Awards.

Receiving the highest Platinum accolade were condominium 76 Shenton and office building Capita-Green. The condo 76 Shenton was designed such that components of the building could be mass produced for economies of scale.

The seven Gold award winners were commercial building Galaxis, retail and industrial building Aperia, JTC's industrial building at 73 Ayer Rajah Crescent, Nanyang Primary School, and three Housing Board projects.

One productive method adopted by most winners was Building Information Modelling, which involves building data-rich 3D models.

This allows problems to be spotted before construction begins, thus avoiding the need for rectification works.

BCA chief executive officer John Keung praised the industry's progress in adopting prefabrication, but called for it to go further.

"To achieve truly game-changing productivity improvements, we have to push for an even higher level of prefabrication in our projects through the Design for Manufacturing and Assembly approach," he said.

Entire parts such as bathrooms or rooms can be made off-site and assembled on-site, he added.

All winners will receive their awards tonight during the BCA Awards ceremony at Resorts World Sentosa.

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