The Award
The BCA Construction Excellence Award was introduced in 1986 and is now into its 27th year of competition. BCA has conferred 187 Awards and 180 Certificates of Merit from 1986 to 2011. In addition, another 17 Awards and 11 Certificates of Merit will be given out at the BCA Awards 2012. Invitations for nominations for the 2012 Awards were made in August 2011 to architectural and engineering consultancy firms, government departments, statutory boards as well as construction firms. 42 projects were nominated and 31 were shortlisted for evaluation.

The Recipients
Builders are the principal recipients of the Award. Developers and Consultants (Architects, Structural Engineers, M&E Engineers and Quantity Surveyors) who were involved in the project will also be acknowledged.

Award Categories
There are 7 award categories as follows:

a. Commercial / Mixed Development Buildings
b. Industrial Buildings
c. Institutional Buildings
d. Residential Buildings ($1,500/m² and Above)
e. Residential Buildings (Below $1,500/m²)
f. Small Buildings - $3 million to $10 million
g. Civil Engineering Projects

Assessment Criteria
Projects were assessed by the Assessment Committee in 3 stages:

a. Builders’ presentation on the construction process;
b. Site visits; and
c. A committee meeting to deliberate the results.

Assessment Committee

CHAIRMAN
Mr. Lai Huen Poh
BCA Board Member
Managing Director
RSP ARCHITECTS
PLANNERS & ENGINEERS (PTE) LTD

Mr. Hitoshi Fujita
SHIMIZU CORPORATION

Mr. Khor Tong Meng
ALLGREEN PROPERTIES LIMITED

Mr. Steven Low
Kong Yen
ONG&ONG PTE LTD

Mr. Tan Tian Chong
BUILDING AND CONSTRUCTION AUTHORITY

Mr. Yap Tiem Yew
HOUSING & DEVELOPMENT BOARD

Prof. Richard Liew
NATIONAL UNIVERSITY OF SINGAPORE

Mr. Ler Seng Ann
URBAN REDEVELOPMENT AUTHORITY

Mr. Louis Paul Fok Kow
LAND TRANSPORT AUTHORITY

Dr. Tan Guan
T.Y.LIN INTERNATIONAL PTE LTD

MEMBERS

Mr. Anthony Chia
CITY DEVELOPMENTS LIMITED

Mr. Hiroshi Fujita
SHIMIZU CORPORATION

Mr. Khor Tong Meng
ALLGREEN PROPERTIES LIMITED

Mr. Steven Low
Kong Yen
ONG&ONG PTE LTD

Mr. Tan Tian Chong
BUILDING AND CONSTRUCTION AUTHORITY

Mr. Yap Tiem Yew
HOUSING & DEVELOPMENT BOARD

Mr. Ler Seng Ann
URBAN REDEVELOPMENT AUTHORITY

Mr. Louis Paul Fok Kow
LAND TRANSPORT AUTHORITY

Dr. Tan Guan
T.Y.LIN INTERNATIONAL PTE LTD

Mr. Tan Tian Chong
BUILDING AND CONSTRUCTION AUTHORITY

Mr. Yap Tiem Yew
HOUSING & DEVELOPMENT BOARD
Ion Orchard
Commercial / Mixed Development Buildings Category

**Builder**
Penta-Ocean Construction Co., Ltd.

**Developer**
Orchard Turn Retail Investment Pte Ltd

**Project Manager**
Orchard Turn Developments Pte Ltd

**Principal Architect**
RSP Architects Planners & Engineers (Pte) Ltd

**Structural Consultant**
RSP Architects Planners & Engineers (Pte) Ltd

**M&E Consultant**
Squire Mech Pte Ltd

**Quantity Surveyor**
Langdon & Seah Singapore Pte Ltd

**Construction Cost**
S$328.7 million

**Construction Period**
36 months

**Gross Floor Area**
87,486 m²

### Key Features

- Mixed development comprising a retail podium and 56-storey luxury residential tower. The development is integrated with the Orchard MRT Station and linked by an underground pedestrian mall below Paterson Road connecting to Wheelock Place.

- High CONQUAS score of 89.7.

- Winner of SSSS Steel Design Awards 2009 (Industrial and Commercial), Quality Building Award 2010: Certificate of Grand Award, BCA Design and Engineering Safety Excellence Award 2011, BCA Green Mark Gold Award 2007, and MAPIC 2006: Best Retail Development over 20,000m² and Best Architectural Entry.

- Reduced the time taken and noise generated during excavation, cutting, demolishing and removal works, with the purchase of special SuperTop cutting machines.

- Allow super-structure and basement works to proceed concurrently by using a top-down construction method.

- Improved productivity and reduced environmental impact, through the use of self-climbing steel formwork system for lift core construction and re-use of formwork for the construction of vertical segments.
Marina Bay Financial Centre Commercial Phase 1
Commercial / Mixed Development Buildings Category

**Builder**
Kajima Overseas Asia Pte Ltd and Tiong Seng Contractors Pte Ltd JV

**Developer**
BFC Development Pte Ltd

**Architectural Consultant**
DCA Architects Pte Ltd

**Structural Consultant**
Meinhardt (Singapore) Pte Ltd

**M&E Consultant**
Meinhardt (Singapore) Pte Ltd

**Quantity Surveyor**
Langdon & Seah Singapore Pte Ltd

**Construction Cost**
S$558.4 million

**Construction Period**
38.0 months

**Gross Floor Area**
189,000 m²

Key Features

- High-end office complex comprising two towers. Tower 1 comprises 33 storeys including two basements, a mezzanine floor, rooftop garden and office spaces. Tower 2 comprises 51 storeys including two basements and office spaces.

- High CONQUAS score of 88.7.

- Winner of BCA Green Mark Gold Award 2008 as well as Design and Engineering Safety Excellence Award 2011.

- Enhanced the project’s productivity, buildability, life cycle serviceability and quality by re-designing originally proposed cast-in-situ floor slabs to precast slabs which can withstand potential deflection and floor vibration.

- Overcame the challenge of maintaining the stability of underground tunnels and weak marine clay during excavations works, through Deep Cement Mixing (DCM) and jet grouting.

- Enhanced construction productivity through the adoption of unitised curtain wall systems. This also minimises the building’s energy usage by allowing more daylight into the building.
BCA CONSTRUCTION EXCELLENCE AWARD

Mapletree Business City
Commercial / Mixed Development Buildings Category

Builder
Shimizu Corporation

Developer
Mapletree Investments Pte Ltd

Principal Consultant
P&T Consultants Pte Ltd

Structural Consultant
P&T Consultants Pte Ltd

M&E Consultant
T.Y.Lin International Pte Ltd

Quantity Surveyor
Northcroft Lim Consultants Pte Ltd

Landscape Consultant
Site Concepts International Pte Ltd

Construction Cost
S$442.8 million

Construction Period
26.0 months

Gross Floor Area
183,375 m²

Key Features

• Four 14 to 18-storey office tower blocks.

• High CONQUAS score of 88.5.

• Winner of BCA Green Mark Platinum 2010, Universal Design Award 2011 (Silver), LIAS Awards of Excellence 2011, FIABCI Singapore Property Awards 2011 (Sustainable Development Category).

• Improved buildability, quality and life cycle serviceability through the extensive use of precast elements.

• Revised piling positions and design of columns for smaller footings to avoid clashes with services at the foundation area of the PSA Skybridge.

• Revised pile design to retain the existing car lots and loading/unloading bay at the existing Comtech Building.

• Improved co-ordination works and reduced clashes or obstructions, through the use of Shimizu 4D Simulation System to simulate construction activities.

• Enhanced management, safety and control of manpower on site by using SMART cameras installed at tower cranes to monitor site activities real-time.
Tokio Marine Centre
Commercial / Mixed Development Buildings Category

Builder
Shimizu Corporation

Developer
Tokio Marine Insurance Singapore Ltd

Principal Consultant
Chan Sau Yan Associates

Structural Consultant
Web Structures

M&E Consultant
Vincent, Han & Associates

Quantity Surveyor
Northcroft Lim Consultants Pte Ltd

Environmental Sustainability Design Consultant
G-Energy Global Pte Ltd

Construction Cost
S$70.8 million

Construction Period
25.0 months

Gross Floor Area
14,964 m²

Key Features

• 21-storey building with one basement, including offices, a car park and sky-terrace.

• Winner of numerous awards including BCA Green Mark GoldPlus Award 2011, Design and Engineering Safety Excellence Awards 2011 (Merit), and 11th SIA Architectural Design Award 2011 (Honorable Mention).

• High CONQUAS score of 88.4.

• Improved buildability, quality and life cycle serviceability, through the use of external precast walls and columns.

• Better quality control for fair-faced concrete and timber imprint concrete.

• Custom-made external climbing platform with safety barricade for the installation of external precast columns and walls. This helped to overcome the challenge of constructing a building with a top floor area that is larger than its bottom.
Khoo Teck Puat Hospital
Institutional Buildings Category

Builder
Hyundai Engineering & Construction Co., Ltd

Developer
Ministry of Health

Principal Consultant
CPG Consultants Pte Ltd

Structural Consultant
CPG Consultants Pte Ltd

M&E Consultant
CPG Consultants Pte Ltd

Quantity Surveyor
CPG Consultants Pte Ltd

Construction Cost
S$447.0 million

Construction Period
28.0 months

Gross Floor Area
108,676 m²

Key Features

• Hospital comprising three blocks and two-level basements. Tower A (8 storeys) houses private wards and Tower B (10 storeys) houses subsidised wards. In addition, Tower C (6 storeys) houses specialist outpatient clinics and Basement 2 consists of car park and service areas, as well as a civil defence shelter.

• Winner of multiple awards including BCA Green Mark Platinum Award 2009 and Universal Design Award 2011 (Gold), SIA-NParks Skyrise Greenery Awards 2010 (First Prize) and SIA Building of the Year Award 2011.

• High CONQUAS score of 91.0.

• Innovation of a water management system at Basement 2 to manage the possibility of ground water ingress at the lower basement.

• Use of precast concrete for floors above the ground level, and recycled concrete panels for balcony planter walls.

• Increased productivity through the use of steel sections for high-level inter-block walkways and larger canopies.
New ITE College West
Institutional Buildings Category

Builder
Gammon Pte Ltd

Developer
Gammon Capital (West) Pte Ltd

Principal Consultant
DP Architects Pte Ltd

Structural Consultant
Beca Carter Hollings & Ferner (S.E. Asia) Pte Ltd

M&E Consultant
Beca Carter Hollings & Ferner (S.E. Asia) Pte Ltd

Quantity Surveyor
Langdon & Seah Singapore Pte Ltd

Facade Consultant
Aurecon Singapore (Pte) Ltd

Landscaping Consultant
Sitetectonix Pte Ltd

Acoustics Consultant
Acviron Acoustics Consultants Pte Ltd

Construction Cost
S$270.0 million

Construction Period
26.0 months

Gross Floor Area
150,280 m²

Key Features

- Institutional development comprising seven buildings, sport facilities, hotel, kitchens, workshops, commercial outlets, offices and lecture theatres. The project is the first institutional development in Singapore to adopt the “Public-Private Partnership” contract.

- High CONQUAS score of 87.7.

- Winner of numerous awards including UK RoSPA Gold Award 2010, BCA Green Mark Platinum Award 2009, Sila Professional Design Gold Award 2011 and LIAS Award of Excellence 2011 (Silver).

- Increased productivity through the quick preparation and installation of reinforced earth retaining walls in place of conventional RC walls.

- Reduced time and resources as the use of ductless ventilation fans significantly reduced the extensive amount of ductworks required as compared to the conventional system.

- Achieved greater buildability and savings on both concrete and reinforcements, by using proposed flat slabs (post-tensioned) instead of RC slab/beam design for main office blocks.

- Teflon membrane roof spanning over 3,000 m² above the events plaza provides shade and protection from the weather, and is one of the largest tensile fabric structures of its type in the world. The membrane was mounted on beams of adjacent building structures allowing easier construction and shorter time for installation.
8 Napier
Residential Buildings - $1,500/m² & Above Category

**Builder**
Hexacon Construction Pte Ltd

**Developer**
Napier Properties Pte Ltd

**Principal Consultant**
Aedas Pte Ltd

**Structural Consultant**
Beca Carter Hollings & Ferner (S.E. Asia) Pte Ltd

**M&E Consultant**
Beca Carter Hollings & Ferner (S.E. Asia) Pte Ltd

**Quantity Surveyor**
KPK Quantity Surveyors (Singapore) Pte Ltd

**Landscape Consultant**
Tierra Design (S) Pte Ltd

**Construction Cost**
S$63.8 million

**Construction Period**
33.0 months

**Gross Floor Area**
11,995 m²

**Key Features**

- Private condominium comprising one residential block of 46 units, with communal amenities.

- High CONQUAS score of 94.9.

- Reduced vibration during installation and removal, through the use of bored piles instead of sheet piles.

- Took great care during excavation works due to the 20m difference in the level between the site and nearby Nassim Road.

- Used recoverable ground anchors for temporary earth retaining structure, allowing proper support during excavation without permanently affecting the surroundings.

- Used tube-a-manchette grouting between piles as an alternative to costlier and more resource-demanding secant piles.
BCA CONSTRUCTION EXCELLENCE AWARD

The Arte
Residential Buildings - $1,500/m² & Above Category

Builder
Dragages Singapore Pte Ltd

Developer
City Developments Limited

Principal Consultant
SCDA Architects Pte Ltd

Structural Consultant
LSW Consulting Engineers Pte Ltd

M&E Consultant
Conteem Engineers Pte Ltd

Quantity Surveyor
KPK Quantity Surveyors (Singapore) Pte Ltd

Construction Cost
S$162.9 million

Construction Period
33.0 months

Gross Floor Area
51,507m²

Key Features

• Private housing development comprising two 36-storey towers with a total of 336 apartment units and 339 car park lots.

• High CONQUAS score of 96.2.

• A major innovation in the project was the repositioning and incorporation of household shelters to the emergency staircase, thereby providing additional space in the units.

• Shear walls on the superstructure facilitated structural casting and subsequently eliminated the need for plastering works on both internal and external walls.

• Improved buildability and achieved the seven-day construction cycle, through extensive use of precast elements and precast bathrooms.

• The basement car park was widened horizontally instead of adopting a deeper design to avoid complexities with deep excavation.

• Elimination of conventional screeding work on living room and bedroom floors saved time and resources, and improved cleanliness.

• The external cantilevered façade platform, stair platform, working platform and internal shaft platform eliminated the need for full-height scaffolding while providing the required safety.
The Cascadia
Residential Buildings - $1,500/m² & Above Category

**Builder**
Woh Hup (Private) Limited

**Developer**
Allgreen Properties Limited

**Principal Consultant**
ADDP Architects LLP

**Structural Consultant**
KTP Consultants Pte Ltd

**M&E Consultant**
Beca Carter Hollings & Ferner (S E Asia) Pte Ltd

**Quantity Surveyor**
Langdon & Seah Singapore Pte Ltd

**Landscape Consultant**
Belt Collins International (Singapore) Pte Ltd

**Construction Cost**
S$140.7 million

**Construction Period**
42.0 months

**Gross Floor Area**
57,072m²

---

**Key Features**

- Private condominium comprising 13 ten-storey blocks with attics, with a total of 536 units and one basement car park. Amenities include a tennis court, swimming pool, fitness stations, children's playground, Jacuzzi, private pools at penthouses, and a BBQ area.

- High CONQUAS score of 95.6.

- Winner of MOM Workplace Safety and Health Innovation Awards 2010 (Innovation), SCAL WSH Innovation Convention 2010 (Silver) and RoSPA Occupational Safety Awards 2011 (Gold).

- Alternative design of basement columns and wall resulted in an increase in the number of car park lots in the development.

- Use of system formwork for the flat slab and DOKA jump form for all vertical elements resulted in simpler, safer and faster construction.

- Pile caps are rotated or combined to optimise the building's foundation.
Dakota Residences
Residential Buildings - $1,500/m² & Above Category

Builder
Dragages Singapore Pte Ltd

Developer
Rivershore Pte Ltd (A Joint Venture Company of Ho Bee Investment Ltd & ChoiceHomes Investments Pte Ltd)

Principal Consultant
Architects 61 Pte Ltd

Structural Consultant
KTP Consultants Pte Ltd

M&E Consultant
Alpha Consulting Engineers Pte Ltd

Quantity Surveyor
KPK Quantity Surveyors (Singapore) Pte Ltd

Landscape Architect
ONG&ONG Pte Ltd

Construction Cost
S$129.7 million

Construction Period
31 months

Gross Floor Area
40,605 m²

Key Features

• Private condominium consists of five blocks of 19-storey residential buildings with a total of 348 units, car parks, swimming pool, clubhouse and ancillary facilities.

• High CONQUAS score of 94.3.

• Winner of BCA Construction Productivity Award - Projects 2011 (Gold) and BCA Construction Productivity Award - Best Practices and Innovations 2011 (Platinum).

• Minimised transportation cost through the production of precast elements at on-site precast yards. The use of precast materials during construction subsequently improved productivity and buildability.

• The metal formwork system provided good alignment to concrete surface, negating the need for plastering work, thus increasing productivity.

• Construction technologies such as the cantilever platform and precast system on-site helped achieve a seven-day construction cycle.
Marina Bay Residences
Residential Buildings - $1,500/m² & Above Category

**Builder**
Woh Hup (Private) Limited

**Developer**
Marina Bay Residences Pte Ltd

**Principal Consultant**
DCA Architects Pte Ltd
Architectural Design Consultant
Kohn Pedersen Fox Associates PC

**Structural Consultant**
Meinhardt (Singapore) Pte Ltd

**M&E Consultant**
Meinhardt (Singapore) Pte Ltd

**Quantity Surveyor**
Langdon & Seah Singapore Pte Ltd

**Construction Cost**
S$185 million

**Construction Period**
37.0 months

**Gross Floor Area**
55,000 m²

**Key Features**

- Private condominium comprising a 55-storey tower block with 428 apartment units, a multi-storey car park, tennis court, and other communal amenities.

- High CONQUAS score of 94.4.

- Winner of BCA Green Mark Gold Award 2010, RoSPA Occupational Safety Awards 2010 (Silver), Safety and Health Award Recognition for Projects 2010 and SCAL WSH Innovation Convention 2010 (Merit).

- Improved productivity by getting workers to hoist building materials to the correct points of work at the right time, relieving skilled tradesmen to carry out the finishing work.

- System formwork (DOKA) was used at the gable end wall to maintain the verticality and proper alignment from floor to floor, thus reducing external trimming and thick plastering.

- Enhanced quality, productivity and safety, while eliminating the need for scaffolding, through the use of precast façade elements and system formwork.
The Orchard Residences
Residential Buildings - $1,500/m² & Above Category

**Builder**
Penta-Ocean Construction Co., Ltd.

**Developer**
Orchard Turn Residential Development Pte Ltd

**Project Manager**
Orchard Turn Developments Pte Ltd

**Principal Architect**
RSP Architects Planners & Engineers (Pte) Ltd

**Structural Consultant**
RSP Architects Planners & Engineers (Pte) Ltd

**M&E Consultant**
Squire Mech Pte Ltd

**Quantity Surveyor**
Langdon & Seah Singapore Pte Ltd

**Construction Cost**
S$149.3 million

**Construction Period**
51 months

**Gross Floor Area**
38,240 m²

**Key Features**

- 56-storey luxury residential tower with 175 apartment units, a double-height public observation deck as well as common amenities for residents.
- High CONQUAS score of 94.2.
- Winner of BCA Design and Engineering Safety Excellence Award 2011, LIAS Awards 2011 (Gold) and Best Category for “Residential” Implementation.
- Tower block foundation was integrated with retail mall construction and was constructed using the top-down construction method.
- Large barrette piles and columns were used to address the requirement for large point loads from the 56th storey.
- Adoption of precast construction to reduce formwork and rebar usage/storage on site to overcome space limitations.
- Improved productivity, safety and quality through the use of a monorail gondola system for the installation of a unitised curtain wall.
BCA CONSTRUCTION EXCELLENCE AWARD

The Seafront on Meyer
Residential Buildings - $1,500/m² & Above Category

Builder
Woh Hup (Private) Limited

Developer
CapitaLand Residential Singapore

Principal Consultant
ONG&ONG Pte Ltd

Structural Consultant
P&T Consultants Pte Ltd

M&E Consultant
Parsons Brinckerhoff Pte Ltd

Quantity Surveyor
Langdon & Seah Singapore Pte Ltd

Construction Cost
S$151.2 million

Construction Period
35.5 months

Gross Floor Area
55,979 m²

Key Features

• Private condominium comprising three blocks of 24-storey residential buildings, consisting of a total of 327 units, with basement car parks, a single-storey clubhouse and other amenities.

• High CONQUAS score of 93.0.

• Winner of RoSPA Occupational Safety Awards 2011 (Gold) and BCA Green Mark GoldPlus 2010.

• Improved speed and safety of construction through the use of system formwork for the flat slab and DOKA jump form for all vertical elements.

• Early completion and commissioning of the electrical sub-station eliminated the need for a generator, and facilitated the supply of power to the tower cranes and site office.

• Used caisson sinking method to construct the basement lift pits due to the soft ground condition.

• Used solar panels to power the guard house and landscape lighting.
Wilkie Studio
Residential Buildings - $1,500/m² & Above Category

Builder
Tiong Seng Contractors (Pte) Ltd

Developer
City Developments Limited

Principal Consultant
ADDP Architects LLP

Structural Consultant
KTP Consultants Pte Ltd

M&E Consultant
BELMACS Pte Ltd

Quantity Surveyor
KPK Quantity Surveyors (Singapore) Pte Ltd

Interior Design Consultant
Index Design Pte Ltd

Landscape Architect
Site Concept International Pte Ltd

Construction Cost
S$25.6 million

Construction Period
24.0 months

Gross Floor Area
5,057 m²

Key Features

- Private condominium comprising three blocks of four-storey apartments, with 40 apartment units and communal facilities.

- High CONQUAS score of 95.1.

- Winner of BCA Green Mark GoldPlus Award 2010, Safety & Health Award Recognition for Project (SHARP) 2010, RoSPA Occupational Health and Safety Award (Gold) in 2009 and 2010, WSH Innovation Award 2010 (Merit) and WSH Award for Supervisors 2010.

- Improved productivity and quality through an integrated precast system incorporating structural, architectural and M&E services and advanced modular formwork system for all in-situ slab casting.

- Screedless floor system to all units and basement eliminated the manpower required for conventional screeding done prior to flooring installation.

- 100% prefabricated unit bathrooms done off-site. The types of prefabricated unit bathrooms are also minimised for ease of fabrication and installation.
Building Works at Punggol East Contract 19 (Punggol Lodge)
Residential Buildings – Below $1,500/m² Category

Builder
Teambuild Construction Pte Ltd

Developer
Housing & Development Board

Principal Consultant
Surbana International Consultants Pte. Ltd.

Structural Consultant
Surbana International Consultants Pte. Ltd.

M&E Consultant
Surbana International Consultants Pte. Ltd.

Electrical Consultant
Surbana International Consultants Pte. Ltd.

Architectural Consultant
Surbana International Consultants Pte. Ltd.

Quantity Surveyor
Surbana International Consultants Pte. Ltd.

Construction Cost
S$94.0 million

Construction Period
29.0 months

Gross Floor Area
62,823 m²

Key Features

- Public housing development comprising six 15-storey residential blocks, with 516 units and a multi-storey car park with a green roof.

- High CONQUAS score of 89.1.

- Winner of HDB Best Housekeeping Award 2009.

- Enhanced constructability, productivity and safety through the re-design of cantilever roof façade from cast-in-situ to precast.

- Invented self-folding working platform during the installation of steel lift shaft, reducing the risk of falling from height while increasing productivity and reducing manpower required as compared to conventional metal decking.

- Modified “custom made gondola” during spraying of vermiculite and installation of fire rated board, increasing productivity and reducing manpower as compared to the conventional method of erecting scaffold inside the lift shaft.
Queenstown Redevelopment Contract 24 (Buona Vista Court)  
Residential Buildings – Below $1,500/m² Category

**Builder**  
Straits Construction Singapore Pte Ltd

**Developer**  
Housing & Development Board

**Principal Consultant**  
SIPM Consultants Pte. Ltd.

**Structural Consultant**  
Surbana International Consultants Pte. Ltd.

**M&E Consultant**  
Surbana International Consultants Pte. Ltd.

**Quantity Surveyor**  
Surbana International Consultants Pte. Ltd.

**Architectural Consultant**  
Surbana International Consultants Pte. Ltd.

**Construction Cost**  
S$103.4 million

**Construction Period**  
48.0 months

**Gross Floor Area**  
102,505 m²

---

**Key Features**

- Public housing development comprising four blocks of up to 40 storeys. The development consists of 828 units, a multi-storey car park with roof garden and a community club with commercial units.

- High CONQUAS score of 91.8.


- Ensured the safety of workers by using easy-install barricades to prevent workers from falling from height and reducing the risk of working near window openings and void areas.

- Ensured the safety of workers by using self-invented safety guide for bakau piles, reducing the risk of workers working near bakau piling.
Proposed Serangoon Reservoir Dams, Gates, Dredging and Ancillary Works
Civil Engineering Projects Category

Builder
Koon Construction & Transport Co Pte Ltd

Developer
PUB Singapore

Principal Consultant
CPG Consultants Pte Ltd

Structural Consultant
CPG Consultants Pte Ltd

M&E Consultant
CPG Consultants Pte Ltd

Quantity Surveyor
CPG Consultants Pte Ltd

Construction Cost
S$126.0 million

Construction Period
39.4 months

Key Features

• Construction of dams at Serangoon Harbour, a containment bund off Pulau Semakau and dredging work.

• Winner of PUB Safety Performance Award.

• Facilitated the construction of stone column installation, shore protection and RC bed protection in dry condition, by increasing the size of the cofferdam.

• This was made possible by the use of sophisticated equipment for the construction of 1.8 km and 14 m underwater stone bunds, which minimised environmental hazards and improved the speed of construction.
BCA CONSTRUCTION EXCELLENCE AWARD

Additions & Alterations to Shuqun Secondary School at Jurong East Street 21, Singapore
Institutional Buildings Category

**Builder**
Guan Ho Construction Co. Pte Ltd.

**Developer**
Ministry of Education

**Principal Consultant**
CPG Consultants Pte Ltd

**Structural Consultant**
CPG Consultants Pte Ltd

**M&E Consultant**
CPG Consultants Pte Ltd

**Quantity Surveyor**
CPG Consultants Pte Ltd

**Project Manager**
PM Link Pte Ltd

**Construction Cost**
$37.6 million

**Construction Period**
28.0 months

**Gross Floor Area**
25,880 m²

---

TRINITY @ Paya Lebar
Institutional Buildings Category

**Builder**
China Construction (South Pacific) Development Co Pte Ltd

**Developer**
Trinity Christian Centre

**Principal Consultant**
DP Architects Pte Ltd

**Structural Consultant**
LBW Consultants LLP

**M&E Consultant**
M&P Consulting Engineers

**Quantity Surveyor**
KPK Quantity Surveyors (Singapore) Pte Ltd

**Project Manager**
Trinity Christian Centre

**Construction Cost**
$61.4 million

**Construction Period**
47.5 months

**Gross Floor Area**
21,000 m²
BCA CONSTRUCTION EXCELLENCE AWARD

Latitude Condominium
Residential Buildings - $1,500/m² & Above Category

Builder
Nakano Singapore (Pte) Ltd

Developer
CapitaLand Residential Singapore

Principal Consultant
RSP Architects Planners & Engineers (Pte) Ltd

Structural Consultant
SCE Consultants (Pte) Ltd

M&E Consultant
BELMACS Pte Ltd

Quantity Surveyor
Rider Levett Bucknall

Landscape Architect
Sitetectonix Pte Ltd

Construction Cost
S$74.7 million

Construction Period
37.5 months

Gross Floor Area
26,674 m²

Lumiere
Residential Buildings - $1,500/m² & Above Category

Builder
Hexacon Construction Pte Ltd

Developer
BS Capital Pte Ltd

Principal Consultant
P&T Consultants Pte Ltd

Structural Consultant
RSP Architects Planners & Engineers (Pte) Ltd

M&E Consultant
J Roger Preston (S) Pte Ltd

Quantity Surveyor
Langdon & Seah Singapore Pte Ltd

Construction Cost
S$44.6 million

Construction Period
41.0 months

Gross Floor Area
12,789 m²
### Paterson Suites
**Residential Buildings - $1,500/m² & Above Category**

<table>
<thead>
<tr>
<th>Role</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Builder</strong></td>
<td>Greatearth Construction Pte Ltd</td>
</tr>
<tr>
<td><strong>Developer</strong></td>
<td>Bukit Sembawang View Pte Ltd</td>
</tr>
<tr>
<td><strong>Principal Consultant</strong></td>
<td>DP Architects Pte Ltd</td>
</tr>
<tr>
<td><strong>Structural Consultant</strong></td>
<td>KTP Consultants Pte Ltd</td>
</tr>
<tr>
<td><strong>M&amp;E Consultant</strong></td>
<td>Rankine &amp; Hill (S) Pte Ltd</td>
</tr>
<tr>
<td><strong>Quantity Surveyor</strong></td>
<td>WT Partnership</td>
</tr>
<tr>
<td><strong>Landscape Architect</strong></td>
<td>DLQ Design Pte Ltd</td>
</tr>
<tr>
<td><strong>Construction Cost</strong></td>
<td>S$67.4 million</td>
</tr>
<tr>
<td><strong>Construction Period</strong></td>
<td>33.5 months</td>
</tr>
<tr>
<td><strong>Gross Floor Area</strong></td>
<td>16,880 m²</td>
</tr>
</tbody>
</table>

### Tribeca
**Residential Buildings - $1,500/m² & Above Category**

<table>
<thead>
<tr>
<th>Role</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Builder</strong></td>
<td>Tiong Seng Contractors (Pte) Ltd</td>
</tr>
<tr>
<td><strong>Developer</strong></td>
<td>City Developments Limited</td>
</tr>
<tr>
<td><strong>Principal Consultant</strong></td>
<td>RSP Architects Planners &amp; Engineers (Pte) Ltd</td>
</tr>
<tr>
<td><strong>Structural Consultant</strong></td>
<td>Squire Mech Pte Ltd</td>
</tr>
<tr>
<td><strong>M&amp;E Consultant</strong></td>
<td>Langdon &amp; Seah Singapore Pte Ltd</td>
</tr>
<tr>
<td><strong>Quantity Surveyor</strong></td>
<td>S$65.3 million</td>
</tr>
<tr>
<td><strong>Construction Period</strong></td>
<td>47.0 months</td>
</tr>
<tr>
<td><strong>Gross Floor Area</strong></td>
<td>20,833 m²</td>
</tr>
</tbody>
</table>
BCA CONSTRUCTION EXCELLENCE AWARD

**Waterfall Gardens**  
*Residential Buildings - $1,500/m² & Above Category*

**Builder**  
China Construction (South Pacific) Development Co Pte Ltd

**Developer**  
Acecharm Pte Ltd

**Principal Consultant**  
ADDP Architects LLP

**Structural Consultant**  
KTP Consultants Pte Ltd

**M&E Consultant**  
United Project Consultants Pte Ltd

**Quantity Surveyor**  
Langdon & Seah Singapore Pte Ltd

**Landscape Architect**  
Belt Collins International (Singapore) Pte Ltd

**Construction Cost**  
S$60.5 million

**Construction Period**  
38.9 months

**Gross Floor Area**  
25,993 m²

**Building Works at Punggol West Contract 7**  
*Residential Buildings – Below $1,500/m² Category*

**Builder**  
Kay Lim Construction & Trading Pte Ltd

**Developer**  
Housing & Development Board

**Principal Project Management Consultant**  
SIPM Consultants Pte. Ltd.

**Structural Consultant**  
Surbana International Consultants Pte. Ltd.

**M&E Consultant**  
Surbana International Consultants Pte. Ltd.

**Quantity Surveyor**  
Langdon & Seah Singapore Pte Ltd

**Landscape Architect**  
Belt Collins International (Singapore) Pte Ltd

**Construction Cost**  
S$124.5 million

**Construction Period**  
35 months

**Gross Floor Area**  
93,307 m²
Building Works at Sengkang N2 C3A
Residential Buildings – Below $1,500/m² Category

**Builder**
Welltech Construction Pte Ltd

**Developer**
Housing & Development Board

**Principal Consultant**
Surbana International Consultants Pte. Ltd.

**Structural Consultant**
Surbana International Consultants Pte. Ltd.

**M&E Consultant**
Surbana International Consultants Pte. Ltd.

**Quantity Surveyor**
Surbana International Consultants Pte. Ltd.

**Project Manager**
SIPM Consultants Pte. Ltd.

**Construction Cost**
S$48.5 million

**Construction Period**
29.0 months

**Gross Floor Area**
47,271 m²

Circle Line Stage 2 - Contract 821, Construction and Completion of Kim Chuan Depot
Civil Engineering Projects Category

**Builder**
Hock Lian Seng Infrastructure Pte Ltd

**Developer**
Land Transport Authority

**Structural Consultant**
T.Y.Lin International Pte Ltd

**M&E Consultant**
Parsons Brinckerhoff Pte Ltd

**Construction Cost**
S$296.5 million

**Construction Period**
64.0 months

**Architectural Consultant**
DP Architects Pte Ltd
BCA CONSTRUCTION EXCELLENCE AWARD

MERIT

Proposed Construction Of A Vehicle Link Bridge Across Ayer Rajah Expressway To Connect The Kent Ridge Campus To The NUS University Town
Civil Engineering Projects Category

**Builder**
Sato Kogyo (S) Pte. Ltd.

**Developer**
National University of Singapore

**Principal Consultant**
T.Y.Lin International Pte Ltd

**Structural Consultant**
T.Y.Lin International Pte Ltd

**Quantity Surveyor**
WT Partnership (S) Pte Ltd

**Construction Cost**
$34.4 million

**Construction Period**
25.0 months