

We shape a <mark>safe, high quality,</mark> sustainable and <mark>friendly built e</mark>nvironment

New Measures for Safety and Professionalism

3-8 • new measures for safety and professionalism 9 • BCA goes international 10-11 • upcoming guidelines on the use of non-british standard steel 12-13 • recycling insights from Japan and Korea 14-15 • students get creative with green buildings 16-17 • 3 buildings approved for accessibility fund 18-19 • BCA Quality Mark updates

editorial committee

Chief Editor: Leong Ee Leng

Editor: Lam Fei Yen

Editorial Committee Members:

Irene Ho Lim Lek Lin Low Yee Mei Phua Hui Chun

Rajesh Kannaya Nainani

Sok Cui Ping Steven Tan

Circulation Officer: Nor Ainah Bte Ali

Contributors for this issue:

Chia Yen Ling Choong Teck Min Goh Thiam Lai Grace Mui

Kaliannan Thanabal

Nicholas Tan Tan Mei Ling Wong Jung Keen

Pillars is published bi-monthly by the Corporate Communications Department, Building and Construction Authority 5 Maxwell Road #16-00 Tower Block MND Complex Singapore 069110

Tel: 6325 7720 Fax: 6325 4800 Email: bca_enquiry@bca.gov.sg Website: http://www.bca.gov.sg

Written permission must be obtained from BCA to reproduce any part of Pillars.

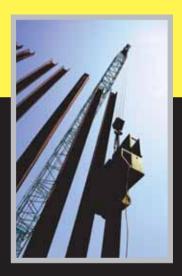
Your views and contributions

Let us know what you think about Pillars. You are also welcomed to contribute an article, subject to our approval. Please attention it to **The Editor, Pillars** if you send by post or fax to the BCA address above stated. Alternatively, you can email to bca_enquiry@bca.gov.sg.

New Measures for **Safety and Professionalism**

New and wide-ranging measures will come about from amendments made to the Building Control Act in September 2007, paving the way to better standards of safety and professionalism in the construction industry.

Catch the summary of the main changes made to the building control regulatory framework.



TERS AND UNDERGROUND WORKS

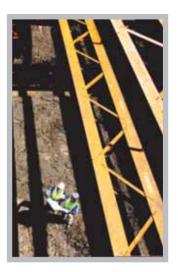
Temporary earth retaining structures now regulated as building works

Temporary earth-retaining structures (TERS) are the supporting systems used in excavations to hold back the earth while the permanent structures are being constructed. TERS were the structures that failed at Nicoll Highway.

As TERS were traditionally regarded as construction methods, they were not regulated as building works under the Building Control Act. Even then, BCA recognised that these support systems could have significant safety impact on properties surrounding an excavation and had regulated TERS by imposing conditions to the permit granted prior to construction. Having observed that temporary works were not treated the same way as permanent works under the regulatory framework, the Committee of Inquiry for the Nicoll Highway Collapse recommended that the regulations on TERS be strengthened.



New measures are now introduced to make TERS equal to permanent building works, subject to the full rigour of control in design and construction. As with permanent works, TERS will now need to be designed and supervised by a Professional Engineer (PE), and reviewed by an Accredited Checker (AC).



Geotechnical specialists now required for underground building works

As an excavation gets deeper, the design and construction of the TERS also become more complex due to variable ground conditions. The task of ensuring their safety can therefore be as challenging, if not more so, than some permanent works.

In most cases, knowledge and expertise in geotechnical engineering is critical for TERS in deep excavations. When consulted, the industry generally agreed that it would be prudent to require specialist geotechnical inputs for excavations beyond the depth of one basement level. As the typical depth of a basement level is 4 metres, it was decided that geotechnical expertise is needed for excavations more than 6 metres deep. The additional 2-metre allowance was given to take into account localised areas within an excavation, such as for pile caps and lift shafts, where it may be necessary to dig a little deeper than 4 metres.

The industry also recognised other types of permanent underground works for their geotechnical engineering

complexity and safety impact on surrounding buildings. These included tunnels more than 2 metres in diameter, underground structures more than 6 metres deep and complex foundations of tall buildings. Collectively with TERS that are deeper than 6 metres, this group of works is defined in the Act as "underground building works". The new measures will now require a PE and an AC, both specialising in geotechnical engineering, to be responsible for the geotechnical aspects of all underground building works.

New registrations for geotechnical specialists

To facilitate the new measures for underground building works, there will be two new registrations of specialists in geotechnical engineering. First, there is a new category for a specialist PE in geotechnical engineering registered by the Professional Engineers Board. Second, the BCA will register a new category of specialist geotechnical AC under the Building Control Act. The specialist AC's role would be to check and review the geotechnical aspects of underground building works.

Professional Appointments for Various Excavation and Underground Works

Type of Works	Qualified Person	Accredited Checker
Excavation up to 1m	Approval of plans is	s not required
Excavation	Any Professional Engineer	Accredited Checker checks
Above 1m and up to 2m	for structural works	not required
Excavation	Any Professional Engineer	Any Accredited Checker
Above 2m and up to 6m	for structural works	to check
Excavation	Any Professional Engineer	Any Accredited Checker
Above 6m and other	for structural works	to check
underground building works	(but a specialist	(but a Geotechnical
	Geotechnical Professional	Accredited Checker is needed
	Engineer is needed for geotechnical aspects)	for geotechnical aspects)

Examples of Specialised Building Works







LICENSING OF BUILDERS

Licensing of builders to raise professionalism

A major change in the building control system comes with a new requirement for builders to be licensed. The aim is to raise professionalism among builders by requiring them to meet minimum standards of management, safety record and financial solvency. There are two types of licence - one for the general builder and another for the specialist builder, and they are renewable every 3 years.

The general builder is allowed to carry out general building works, covering all types of works except those that are defined as specialist building works. Under the general builder's licence, there are two classes of licence. A Class 1 licence allows the holder to carry on the business of a general builder for any project, while a Class 2 licence restricts the holder to projects with an estimated price of not more than \$3 million.

Builders who carry out any of six types of specialised building works are required to be licensed as specialist builders. These works include piling works, ground stabilisation and earth-retaining works, instrumentation works, structural steelworks, precast concrete works and post-tensioning works.

Appointment of key personnel to qualify for licence

The new regulation requires both general and specialist builders to appoint two key personnel in their respective teams to qualify for a licence. These two persons are required to have prescribed qualifications and experience relevant to the licence.

The first will be the "Approved Person", who is in charge of the management of the business. The second, called the "Technical Controller", will carry out personal supervision on the execution and performance of the building works.

Retaining skills to enhance safety, quality and professionalism

To develop a core group of skilled experienced local workforce, the main builder will be required to deploy a minimum number of registered tradesmen and trade foremen in prescribed key trades in the project for all projects costing \$10 million or more.

safe built environment | p.

ADEQUATE SITE SUPERVISION

Supervision teams now required for larger projects

The Building Control Act has so far required the qualified person (QP) who supervises the structural works to appoint at least one qualified site supervisor to help him at the site, regardless of the size or complexity of a project. The builder has not been required to provide any personnel for supervision. In larger projects, this can lead to inadequacy in the resources required to supervise the works properly.

To ensure that there are adequate and necessary resources to carry out site supervision, the Act has been amended to require that the QP appoints a supervision team appropriate to the size of the project.

COMPOSITION OF QUALIFIED PERSON'S SUPERVISION TEAM			
Project Cost	Minimum Supervisors		
Between \$3 million and \$6 million Above \$6 million and up to \$15 million Above \$15 million and up to \$60 million	1 Resident Technical Officer* 1 Resident Engineer 1 Resident Engineer + 1 Resident Technical Officer		
Above \$60 million and up to \$90 million Above \$90 million	Resident Engineer + 2 Resident Technical Officers Resident Engineers + 3 Resident Technical Officers		

^{*}Under the amended Act, the clerk-of-works will be re-named as Resident Technical Officer.

Mandatory continual training for site supervisors

To ensure that site supervisors remain competent and keep abreast of knowledge and skills, mandatory continual training for site supervisors through a prescribed accreditation scheme will be introduced. In addition, the builder will also be required to provide adequate supervision for his works.

INDEPENDENCE OF PROJECT PARTIES

The Committee of Inquiry has highlighted that the relationships between some project parties could potentially give rise to conflict of interests. New provisions in the amendments will therefore specify the circumstances under which certain project parties should not be associated with each other.

Supervision Qualified Person (QP) now independent of the developer

For major works, the QP who supervises the structural works should not have any undue distraction from his prime regard to safety. As such, the QP who supervises the structural works is not allowed to be associated with the developer. He or she cannot be a partner, an officer or an employee of the developer. This requirement for independence will also apply to the QP's supervision team.

Instrumentation specialist builder now independent of the builder

Another requirement for independence is between the builder and the instrumentation contractor monitoring the performance of underground building works. Since it is the builder's work that the instrumentation contractor is monitoring, there should be independence between the two to avoid potential conflicts of interest.

safe built environment I p8

ENVIRONMENTAL SUSTAINABILITY AND BARRIER-FREE ACCESSIBILTY

Minimum requirements on environmental sustainability

The Building Control Act has been amended to allow regulations to be made on minimum requirements of environmental sustainability for new buildings and existing ones that undergo major retrofitting. The minimum requirements would be equivalent to the BCA Green Mark certified standards.

With the coming regulations, Singapore can then achieve a critical mass of green buildings that are economically viable. Having green buildings enables a self-renewing cycle in construction, which would lead to more savings in terms of development costs for developers and operating costs for building owners in the long run.

Continued Compliance with Provisions for Barrier-Free Access

Presently, there are cases where irresponsible owners and occupiers are frustrating provisions for disability access in completed buildings. To address this issue, there is a new provision in the Building Control Act to ensure that building owners and occupiers do not alter, remove or obstruct any physical features that are provided to facilitate movement of persons with disabilities.

This new provision aims to meet the needs of our rapidly ageing population and make Singapore an inclusive and caring society.



BCA

Goes International



BCA's export promotion efforts receive a boost with the setting up of BCA International Pte Ltd, incorporated as a wholly owned subsidiary this year.

With well-constructed and well-managed buildings and infrastructure, Singapore's construction industry has earned a strong brand name and favourable standing overseas. At the helm, BCA's role in moulding a safe, high quality, sustainable and friendly built environment has often been cited as a model of emulation by the foreign media.

Many overseas governments and clients have expressed interest to have BCA assisting them to set up similar systems in their own countries after visiting Singapore and seeing the high-quality built environment here. BCA, therefore, decided to set up a subsidiary company to provide such services to interested clients more effectively.

BCA International Pte Ltd (BCAI) aims to support and complement BCA's current export promotion efforts, as well as to tap the commercial value of BCA's expertise in the building control and construction industry development. Dr John Keung, BCA's CEO, and Mr William Tan, BCA's Director of Business Development, are the Chairman and Executive Director of BCAI respectively.

"The formation of BCAI is an important step forward for BCA," Mr Tan explained. "I am confident that BCAI will provide a coordinated thrust to the export promotion of BCA services and the industry's capabilities. This will enhance our industry's standing in overseas markets."

The success of BCAI will truly enhance Singapore's brand name in setting high-quality building and construction standards, as well as help local building and construction companies to venture and expand overseas. To date, BCAI is working with several foreign parties who are attracted to BCA's unique CONQUAS system and Green Mark Scheme.

To contact BCAI for future business cooperation, please email Mr Koh Lin Ji, Director (International Operations) at koh_lin_ji@bca.gov.sg or Mr Nicholas Tan, Manager (Operations) at nicholas_tan@bca.gov.sg.



BCAI'sKey Services

- Building control policies and regulations
- Building management and maintenance policies and regulations
- Building and construction industry development policies and strategies
- Building quality and environmental management and assessment
- Construction manpower training and skills certification
- Barrier-free design policies and regulations

Upcoming guidelines on the use of samiari





To enhance the resilience of our building and construction industry, BCA is working closely with the industry to adopt more sustainable methods of construction. The use of structural steel is one option in reducing Singapore's dependence on sand and granite.

Currently, the local industry uses the British Standard Code for structural steel design. In order to facilitate the use of structural steel from diverse sources, BCA is working with local industry experts to develop guidelines on the design of structural steel that are manufactured to other standards. Structural steel is available from countries all over the world such as China, Europe, Japan and Australia. In most countries, steel sections are manufactured to local standards, and the mechanical properties may differ slightly from material specifications in the British standards.

The proposed guidelines will allow design procedures to be based on British standards, with appropriate parameters to account for the differences in the manufacturing standards on the steel materials. As a result, design professionals will be able to avail themselves to structural steel from as many sources as possible.

A/Prof Chiew Sing Ping from Nanyang Technological University and A/Prof Richard Liew Jat Yuen from National University of Singapore, who are both local industry experts with established knowledge of international steel design codes, are involved in this highly specialised study to provide the guidelines. The team will look at the acceptance criteria of structural steel that are manufactured to specifications of five standards commonly available in Singapore, namely the European (EN), American (ASTM), Japanese (JIS), Australian/New Zealand (AS/NZS) and Chinese (GB).

For a more holistic approach to safe structural steel design, the experts will produce a design guide for the industry comprising an addendum design annex to BS 5950 and provide recommendations on how to ensure product conformity, quality and traceability in steel materials. When the guidelines are ready, a series of briefing sessions to the industry will be conducted to educate the industry on the proposed use of the addendum and recommendations.

BCA hopes that the guidelines will allow more projects, which are considering the switch from concrete to steel, to take advantage of the wider choice of materials, thus pushing the construction industry a step forward to sustainable construction.

RECYCLING INSIGHTS FROM JAPAN AND KOREA

Article by Mr Guah Eng Hock, an Exco member of Waste Management and Recycling Association of Singapore and a director of SamGreen, a member of Samwoh Group of Companies.

A delegation comprising members from BCA and the Waste Management and Recycling Association of Singapore made a trip to Japan and Korea to study the use of recycled materials in their respective construction industries in early August 2007. The delegation visited several construction and demolition waste processing plants, an ecocement plant, and a sea-sand-washing facility.

Japan and Korea are two distinctly different economies, yet their reasons for turning to the use of recycled materials for construction are similar. The chief motivations for recycling were to extend the life span of landfill sites, stabilise demand and supply of natural aggregates and reduce construction waste

generation. Japan generates 79 million tons while Korea generates 47 million tons of construction wastes annually. Preservation of the environment is also a major concern to both countries, which explains why they are turning increasingly to recycling and the proper treatment of construction waste.

Within the private sector in Japan and Korea, research and development of new recycling technologies are slowly gaining importance. The companies demonstrate pride in their products as they proclaim to possess the best recycling technology in the world. The delegation was treated to a wide array of waste processing technologies.

Key Construction Waste Processing Technologies

Heating and rubbing method

In the heating and rubbing method, concrete waste is heated to 300°C, which disintegrates the cement paste by dehydration. Then by rubbing the waste, cement paste will be removed, leaving behind the original coarse aggregates.

Crushing and wet classifier system

The construction and demolition waste is first fed through the jaw crusher, which will crush the waste to smaller sizes for easier handling. Following that, a cone crusher is used to smoothen the surface of the materials. An impact crusher will then further improve the shape of the aggregates. A classifier, which helps to separate impurities, will be used in the production of fine recycled aggregates (5mm or less), while a double-log washer will scrap cement paste and wash away separate impurities from aggregates to form coarse recycled aggregates (25mm or less).

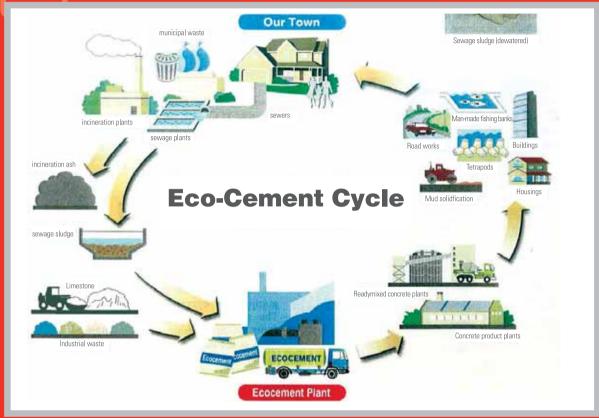
Visit to the recycling plant using crushing and wet classifier system. Insun Research Institute (in the background) was built using recycled aggregates produced from this plant.



Pulsed discharge

A piece of concrete waste is located between the electrodes and treated with pulsed discharge from a Marx generator at output voltage of 400 kV and stored energy of 6.4 kJ/shot.





The delegation also witnessed the innovative use of ash from incinerated municipal waste in the production of eco-cement, where the dioxins and flue gases are fully decomposed and treated while heavy metals are concentrated using patented technology and further refined to yield useful metals.

From the perspective of a member of the recycling community and private sector, the greatest takeaway from the trip was that there was an intimate relationship between the choice of processing technology and the level of cost-benefit achieved, which could further be limited by the constraint of resources such as water and power supply. The private sector should take the lead in investing in new recycling technologies; while the authorities should regulate the industry with appropriate laws and guidelines and consolidate companies into an eco-town to promote and better manage the industry. It was also observed that public-private partnership projects could be undertaken for more capital-intensive projects such as the eco-cement.

Finally, the spirit of recycling should not exist solely in the construction industry but in the whole civil society. This could only be achieved through educating the people and instilling civic consciousness.





Students get creative with green buildings

The Green Building Design Competition 2007 has been introducing secondary school students to green and sustainable building design. More than 120 students from 15 participating schools have embraced this 'green' spirit by getting creative in harnessing solar energy, harvesting rain water and recycling natural resources.

BCA and Bukit Panjang Community Club are proud sponsors of the competition that is jointly organised by the People's Association and Ngee Ann Polytechnic. Bukit Panjang Community Club was the building selected for the competition.

The students had to create physical models to demonstrate their creative applications of green concepts on the building. They had also submitted reports to explain their ideas and show how much rain water and solar energy could be harvested with their designs.



Students explaining their models to the Guestof-Honour, Dr Teo Ho Pin, while BCA director Mr Tan Tian Chong (extreme right) looks on.

Ahmad Ibrahim Secondary School came up tops in the final competition held in Ngee Ann Polytechnic Convention Centre on 12 September 2007. Building professionals and lecturers, including two judges from BCA, made up the panel of judges. The judges had chosen the winning team based on its originality, creativity, feasibility, energy savings and water savings achieved. Votes from the audience had also contributed to 30% of the total score.

Ahmad Ibrahim Secondary School had beaten 30 other teams to win the competition.





3 Buildings **Approved for Accessibility Fund**



The Accessibility Fund is a \$40 million fund set aside by the Government to support and co-pay the retrofitting of basic accessibility features for existing privately owned commercial and institution buildings. The Fund was set aside as part of BCA's fiveyear programme to develop Singapore into a truly accessible city by 2011.

Singapore Power Building

The Singapore Power Building along Somerset Road was built in the 1970s. Recognising the importance of accessibility to different users, the building owners embarked on a programme to upgrade the building with ramps and three platform lifts. They applied for the Accessibility Fund and were granted in-principle funding approval in July 2007. According to Mr Choo Wing Thong, Technical Officer for the upgrading project, the Accessibility Fund was a timely facility making available needed finance to assist building owners in creating a physical environment friendly to the elderly and disabled.

Hotel Windsor

Hotel Windsor along Macpherson Road was also built in the 1970s. Its owner, Ho Bee Developments, wanted to add a ramp, an accessible toilet and accessible carpark lot for wheelchair users. In-principle approval was granted for funding these works in July 2007. Mr Soh Hwee Cheow, Project Manager for Hotel Windsor, had found out about the Fund through his architects. He expressed Ho Bee Developments' support for the provision of accessibility facilities for existing buildings, and that the Accessibility Fund was a great incentive for building owners to provide accessibility facilities for









Singapore Power Building and its new accessibility features

302 @ Besar

302 @ Besar was also built in the 1970s along Jalan Besar Road. Ramps and an accessible toilet for wheelchair users will be provided for this building as part of the current upgrading exercise. The in-principle approval for funding was approved in August 2007. Tiong Choon Co, the building owner, welcomed the Accessibility Fund. Its project manager, Mr Ong Teong Sea, expressed the company's view that the initiative to implement barrier-free accessibility for all buildings in Singapore was an encouraging move.

Application for Accessibility Fund

Besides these pioneer buildings, BCA continues to receive and process further applications. With the continued assistance of the professional community and the support of building owners, more and more buildings in Singapore will be accessible to all in future.

For details on the Accessibility Fund, log on to www.bca.gov.sg For further clarifications, write to <bca_bfa_upgrading@bca.gov.sg> or call the BCA Accessibility Fund Hotline at 6325 8611.

BCA Quality Mark Updates



With more residential projects committed for the BCA Quality Mark, homebuyers can look forward to more and better quality home choices. To date, a total of 26 developers have committed close to 19,000 residential units to the scheme.

Latest BCA Quality Mark Projects

Developer	Project	Units	
City Developments Limited	City Square Residences Parc Emily	910 295	
Hong Leong Holdings Limited	The Tate Residences	85	
Far East Organization	Central	227	
Mapletree Investments Pte Ltd	Beacon	124	
Ho Bee Group	Paradise Islands, Sentosa Cove	29	











The Pier @ Robertson Casabella Condominium

Compared to other projects, projects obtaining the BCA Quality Mark generally achieve higher scores under our Construction Quality Assessment System (CONQUAS). In fact, the top four CONQUAS scored projects in FY2006 (Table 1) were all BCA Quality Mark projects.

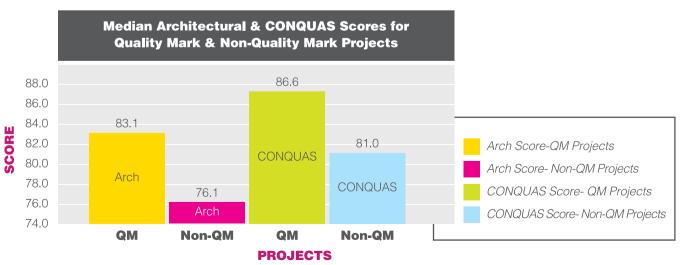
BCA's records also show that the median architectural and overall CONQUAS scores for Quality Mark projects are generally 9% and 7% higher than non-Quality Mark projects respectively (Chart 2).

Homeowners of Quality Mark homes can therefore expect better quality, not just in those architectural items assessed under Quality Mark but also the overall quality as reflected in the higher CONQUAS scores.

Table 1Top four CONQUAS scored projects for FY2006

Project	CONQUAS Score	Developer	Contractor
The Shaughnessy Baywater Condominium Casabella Condominium	90.7 88.9 88.8	Allgreen Properties Limited Allgreen Properties Limited CapitaLand Residential	Woh Hup (Pte) Ltd Woh Hup (Pte) Ltd Lum Chang Building
The Pier @ Robertson	88.7	Singapore City Developments Limited	Contractors Pte Ltd Sumitomo Mitsui
		,	Construction Co Ltd

Chart 2



Date	Event	Contact
11 Oct 07 18 Oct 07 6 Nov 07 13 Nov 07 20 Nov 07	Courses on Good Industry Practices: - Marble/Granite/Ceramic Tiling - Timber Flooring - Waterproofing for Internal Wet Areas - Painting - Aluminium Window	Huang Xiao Man DID: 62489843/824 Email: huang_xiaoman@bca.gov.sg
12 Oct 07	Seminar on "Accessibility in the Built Environment"	Xanna Tan DID: 62489824/843 Email: xanna_tan@bca.gov.sg
15 - 17 Oct 07	Workshop on "Universal Design as an Improved Paradigm for Design - Methods & Processes for Architecture & Interior Design Practice"	Xanna Tan DID: 62489824/843 Email: xanna_tan@bca.gov.sg
15, 17, 22 & 24 Oct 07	Course on "Design of Deep Excavation Temporary Earth Retaining Structures" (4 evenings)	Huang Xiao Man DID: 62489843/824 Email: huang_xiaoman@bca.gov.sg
17 - 19 Oct 07	Certified QM/CONQUAS Manager Course	Huang Xiao Man DID: 62489843/824 Email: huang_xiaoman@bca.gov.sg
24 Oct 07	CONQUAS 21 Training (for Developer & Consultants)	Huang Xiao Man DID: 62489843/824 Email: huang_xiaoman@bca.gov.sg
29 Oct 07 - 25 Jul 08	Part-time course on "Specialist Diploma in Facility & Energy Management" (9 months)	Huang Xiao Man DID: 62489843/824 Email: huang_xiaoman@bca.gov.sg
6, 7, 13 & 14 Nov 07	Course on "Geotechnical Instrumentation for Engineer" (4 evenings)	Xanna Tan DID: 62489824/843 Email: xanna_tan@bca.gov.sg
12 Nov 07 - 29 Aug 08	Part-time course on "Specialist Diploma in Interior & Landscape Design" (9 months)	Huang Xiao Man DID: 62489843/824 Email: huang_xiaoman@bca.gov.sg
16 Nov 07 (pm) tentative	BCA-REDAS 2nd Quality Seminar 2007	Wong Chee Hong DID: 6325 5006 Email: wong_chee_hong@bca.gov.sg
26 Nov 07 - 11 Sep 08	Part-time course on "Specialist Diploma in M&E Co-ordination" (9 months)	Huang Xiao Man DID: 62489843/824 Email: huang_xiaoman@bca.gov.sg
29 - 30 Nov 07	Conference on Recycling for Sustainable Construction, in conjunction with Enviro-Asia 2007	Rose Nguan DID: 6325 5018 Email: rose_nguan@bca.gov.sg

Contest

- 1. Under the amended Building Control Act, builders carrying out specialised building works are required to be licensed. Name any of the six types of specialised building works.
- 2. What is the full name of BCA's wholly owned subsidiary, BCAI?
- 3. Name a building which has been granted in-principle funding approval under the Accessibility Fund.

Send in your answers by 30 Oct 2007 to Editor Pillars, Building and Construction Authority, 5 Maxwell Road, #16-00, Tower Block MND Complex, Singapore 069110. Or e-mail: bca_enquiry@bca.gov.sg or fax to 63254800. Please indicate your name, designation, company, phone number and address. Selected entries will stand to win attractive shopping youchers.

Contact Us

General Enquiries
Tel: 6325 7720
Advertisement Licensing
Tel: 6325 7379
Building Management
Tel: 6325 7383
Construction Activity Feedback
Tel: 1800 DIAL-BCA
Household Shelter
Tel: 6325 7106

Plan Approval, TOP, CSC
Tel: 6325 2211
Plan Search
Tel: 6325 8663
BCA Academy (Courses)
Tel: 6248 9999
Skills Certification
Tel: 6248 9845
CONQUAS / BCA Quality Mark
Tel: 6325 5077

BCA Green Mark
Tel: 6325 5900
ISO Certification
Tel: 6325 5079
Contractors Registry
Tel: 1800-2212242
CORENET
Tel: 6325 5004
Incentive Schemes
Tel: 6325 5068 (IAS)