

IMMERSE IN OUR

VISION

building and construction authority

annual report 06/07





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IN OUR

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IMMERSE IN OUR VISION





Relax, take a stroll along the open living space. Enjoy a respite from the hot afternoon sun under the covered walkways. Tired? Lean on the railings. Immerse in our VISION. A vision to have the best built environment for Singapore, our distinctive global city. With our vision and drive, you can be assured of a living sanctuary so safe, high quality, sustainable and friendly that you are proud to

CALL HOME.



Step in, let peace engulf you. Enjoy an aesthetically pleasing and harmoniously balanced environment that bestows a sense of serenity. An environment that is crafted and shaped by discerning minds and thoughtful hearts. Having total peace of mind is to know that you and your family's safe haven is well taken care of. Safety is everyone's responsibility, it's a mindset that begins at the top and permeates throughout the organisation.



A SANCTUARY YOU CAN FEEL SAFE IN

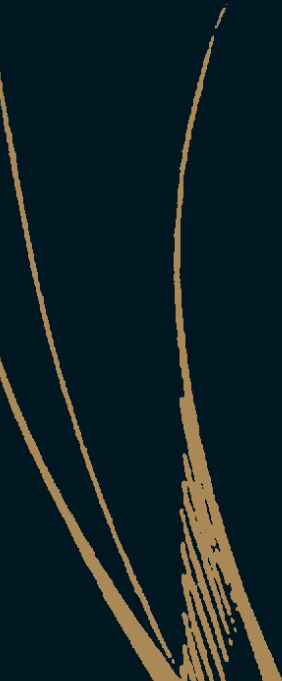




Go on, feel the finishing. Touch the quality materials. See the refined workmanship. Excellence built in as they are planned and designed, with procedures developed to ensure a quality process. Truly an oasis you can take pride in and call your home.



AN OASIS YOU ARE
PROUD OF





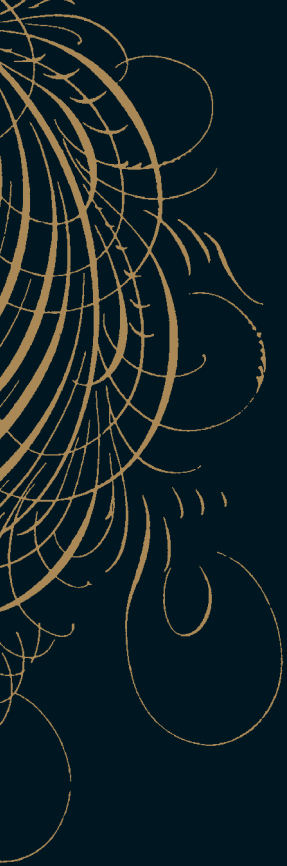
For you and your future generations. An environmentally conscious approach to design and construction, one that seeks balance between nature and the built environment. Doing our best to preserve the planet we all share, we seek to build a living environment that is sustainable for generations to come.



AN ENVIRONMENT THAT IS EARTH-FRIENDLY







Designed with you in mind. For your greater ease of use. Every railing, every ramp. Continuously seeking improvements to enhance your environment and making it a comfortable and conducive haven to live, work and play in.



A HAVEN YOU FEEL
AT HOME IN

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OUR MISSION

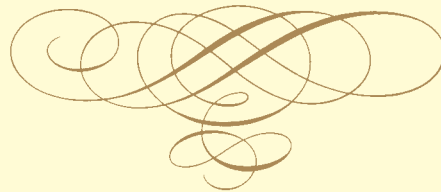


We shape a safe, high quality, sustainable and friendly built environment.

OUR VISION



The best built environment for Singapore, our distinctive global city.





OUR STRATEGIC THRUSTS



- We aim to be a caring and progressive organisation that values its people, the innovative spirit, integrity, and service excellence.
- We ensure high safety standards and promote quality excellence in the built environment.
- We champion barrier-free accessibility and sustainability of the built environment.
- We lead and transform the building and construction industry by:
 - a. Enhancing skills and professionalism
 - b. Improving design and construction capabilities
 - c. Developing niche expertise
 - d. Promoting export of construction related services
- We forge effective partnerships with the stakeholders and the community to achieve our vision.



CORPORATE GOVERNANCE

BCA is committed to good corporate governance. We have put in place a Code of Corporate Governance to formalise the principles and practices of governance within BCA to ensure accountability, responsibility and transparency.

BOARD MEMBERS

The Board currently comprises 12 Board Members. All are non-executive members, except Dr John Keung who is BCA's Chief Executive Officer (CEO). The Board comprises representatives from the industry, academic field and Ministries. The diverse representation of the Board provides an appropriate range of experience, skills, knowledge and perspective to enable the Board to play an active role in guiding BCA to achieve its vision and mission.

The Chairman provides strategic leadership and guidance to the management of BCA, and ensures that discussions are fairly, objectively and independently conducted.

The Board meets at least six times a year to evaluate, approve and monitor the plans and budgets of BCA. It also oversees the work and performance of Management and assesses the financial health of BCA. The BCA Act empowers the Board to form committees from among its members to support the work of the Board.

FINANCE AND AUDIT

Internal Controls

The Board ensures that the Management maintains a sound system of internal controls to safeguard the interest and assets of BCA. It also ensures that a review of BCA's material internal controls, including financial, operational and compliance controls, and risk management, is conducted annually through internal and/or external audits according to the direction of the Finance and Audit Committee.

Finance and Audit Committee

The Finance and Audit Committee reviews the audited financial statements with the external auditors, and reviews audit plans and observations of the external and internal auditors. It also ensures that the management takes appropriate action for audit observations and Finance and Audit Committee's recommendations. All the members in the Finance and Audit Committee are non-executive members.





THOUGHTS OF THE CHAIRMAN



The BCA family deserves
a hearty pat on its back for a great 2006.
Big kudos to everyone.

Our successfully re-aligned mission and
vision “To shape a safe, high quality,
sustainable and friendly built environment.
The best built environment for Singapore,
our distinctive global city,” have clearly
steered us in the right direction.

Today, our integral role in the economic and social development of Singapore has reaped several significant breakthroughs and I am proud to share these accomplishments with you.

Enhancing Building Safety

Governed by a robust regulatory system, Singapore's built environment is renowned for its high safety standards. Not resting on our laurels, we continue to improve the regulatory framework to meet the ever-changing environment. The Building Control Act will be enhanced to include licensing of builders, and to increase the safety of underground construction. In addition, an International Panel of Experts (IPE) has been engaged to help review the building control framework.

Improving Construction Quality

A quality built environment has helped Singapore distinguish the city state from others, and enabled our local firms to establish a strong brand name overseas. In the past year, CONQUAS was applied to 106 projects while six new developers have joined the Quality Mark scheme. To build on these successes, we are stepping up efforts to promote wider adoption of these quality schemes in a broader range of projects.


Promoting Sustainable Buildings and Sustainable Construction

Over the past year, we have introduced several policies and incentives to promote the development of environmentally sustainable buildings. This includes setting aside \$20 million under the Green Mark Incentive Scheme and \$50 million under the MND Research Fund. The public sector will also take the lead in embracing the BCA Green Mark scheme for all new buildings and buildings undergoing substantial retrofitting work.

We will continue to promote the BCA Green Mark scheme and generate greater awareness and demand for green buildings through public education. We will also build up the resilience of the construction industry and its capabilities for sustainable construction.

Ensuring User-Friendliness

BCA is playing our part in making Singapore an inclusive society - enabling our elderly to "age in place" through an elderly-friendly built environment. In the past year, BCA has mapped out a 5-year Barrier-Free Accessibility Upgrading Programme. As the champion of barrier-free accessibility in our built environment, BCA is working with public agencies to take the lead in reviewing and improving the accessibility of their buildings, where possible. For existing private sector buildings, the Government has set aside \$40 million to co-fund voluntary upgrading on barrier-free accessibility.



In addition, in collaboration with the Singapore Institute of Architects and the Handicaps Welfare Association, we have launched the Universal Design Award for the Built Environment. BCA is also strengthening the Code of Barrier-Free Accessibility – due to be released later this year.

Transforming the Industry

In line with our emphasis to develop a professional workforce and promote adoption of innovative technologies, BCA has revamped our training institute, the Construction Industry Training Institute (CITI), into the BCA Academy of the Built Environment. The new Academy will play a leading role in providing quality training, learning and research programmes for the development of an excellent built environment.

These achievements reflect the collective efforts of the management working hand in hand with our staff. I would like to express my sincere appreciation to each and every one of the staff for delivering excellence.

I would also like to thank all my fellow Board colleagues for the guidance they have given to BCA. Last but not least, I would like to thank my predecessor, Mr John Lim, for his invaluable contributions to BCA since 2001.

Let's all work towards making 2007 an even better year for BCA!



Quek See Tiat

Chairman

Building and Construction Authority





THE CEO SPEAKS



The past year has seen us re-focusing and re-defining our role - to make “shaping a safe, high quality, sustainable and friendly built environment” our mission. A deeply embedded value, this re-defined role signifies the great impact of our work on the economic progress, the built environment and the quality of life in Singapore.

With this report, I wish to share with you our programmes and performance right from enhancing our human capital to making the next strategic move.

Achieving Organisation Excellence

Achieving our new vision and mission is possible only through the passion and commitment of our people. Greater emphasis was placed on internal communications to ensure that all staff in the organisation are aligned to the common goal of delivering a safe, high quality, sustainable and friendly built environment for Singapore.

Recognising that our people are our biggest asset, we put in place a Strategic Staff Development Plan to build up our human capital.

Under the Plan, we place special emphasis on the training needs of our staff to build up the much needed capabilities to support our strategic thrusts. One of the key thrusts of the Plan is to empower our staff to take a more active role in charting their own professional and technical development jointly with management. Through self-initiated short attachment programmes, staff can adopt a proactive approach in their own professional development and gain the relevant hands-on experience to further build up their technical competence.

To motivate our people to perform their best, we have in place a new Associate Professional Scheme. The scheme offers our technical officers the opportunity to shoulder heavier responsibilities in BCA and make significant advancement in their careers with BCA.

The Direction Forward

The disruptions in the supply of sand and granite in early 2007 illustrated the critical role that BCA plays. To provide supply stability and certainty to the market, BCA worked with various agencies to introduce measures such as releasing sand and granite from the government stockpile and opening up new supply sources. But we did not stop there. We scanned the horizon and look for solutions that can enhance the resilience of our industry.

With this in mind, we laid out a Sustainable Construction Master Plan with the aim to reduce our heavy dependence on concrete by 30 to 50 percent in the next five years. This is a key new direction for BCA and for the building and construction industry with the aim of further enhancing the longer-term resilience of the industry. To achieve this, we are implementing initiatives based on three main areas:

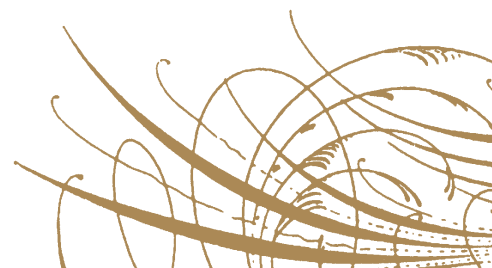
- 1) Addressing design and regulatory issues to facilitate sustainable construction adoption.
- 2) Promoting research & development to facilitate use of recycled materials.
- 3) Promoting and educating both the industry and consumers on benefits of sustainable construction methods and materials.

For BCA to realise our goals, it is crucial that the stakeholders, including the public, understand BCA's mission and the role that we play in shaping our built environment. We have stepped up our publicity in the past year, and will continue to do more so that the community can understand how our work can provide them a distinctive built environment - giving them a high quality of life that they can be proud of. To this end, we are setting up a Gallery in the BCA Academy to showcase BCA's efforts and the industry's achievements in developing an excellent built environment.

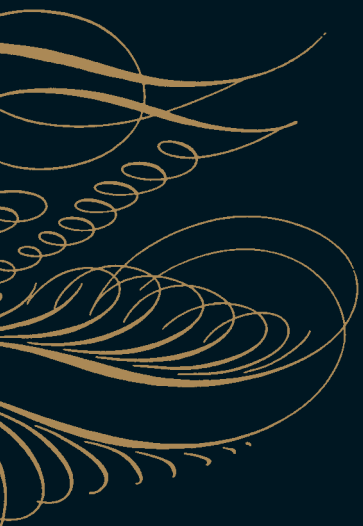
Thanks to the hard work of many, this has been a fruitful year, marked by several notable achievements towards our vision. Going forward, I am confident that together with Board members, my other BCA colleagues and the stakeholders, we will be able to take bigger steps towards delivering the best built environment for Singapore, our distinctive global city.



Dr John Keung
Chief Executive Officer
Building and Construction Authority



BOARD OF DIRECTORS





MR QUEK SEE TIAT

Chairman

Building and Construction Authority

Partner & Deputy Chairman

PricewaterhouseCoopers, Singapore



DR JOHN KEUNG

*Chief Executive Officer
Building and Construction Authority*



MR PEK LIAN GUAN

*Managing Director
Tiong Seng Contractors Pte Ltd*



DR TEO HO PIN

*Mayor of North West District
North West Community Development Council*



MR LEE CHUAN SENG

*Chairman
Beca Carter Hollings & Ferner (SEA) Pte Ltd*

MR LEE KUT CHEUNG

*Director
RSP Architects Planners & Engineers (Pte) Ltd*

MR TAN PENG YAM

*Deputy Chief Executive (Technology)
Defence Science & Technology Agency*



MR LIM EE SENG

*Chief Executive Officer
Fraser's Centrepoint Limited*

MR SONG WEE NGEE

*Managing Director
KTP Consultants Pte Ltd*



MR HO CHEE PONG

*Director
Info-Communications & Media Development
Ministry of Information, Communications and the Arts*

PROF CHEONG HEE KIAT

President

SIM University



MR CHEONG YIP SENG

Editorial Advisor

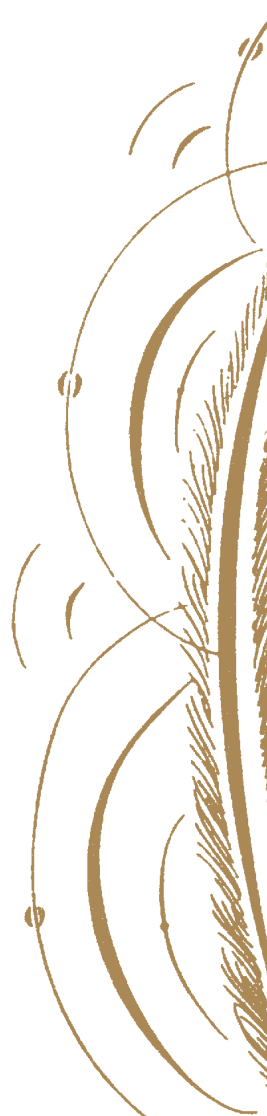
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SENIOR MANAGEMENT



DR JOHN KEUNG

*Chief Executive Officer
Building and Construction Authority*





MR LAM SIEW WAH

*Deputy Chief Executive Officer
Industry & Corporate Development*

MR BENEDICT TAN

*Deputy Chief Executive Officer, Building Control
Managing Director, BCA Academy of the Built Environment*



MR TAN TIAN CHONG

Director

Technology Development Division

MR WILLIAM TAN YONG KEH

Director

Business Development Division

MR CHIN CHI LEONG

Director, Manpower Development Division

Deputy Managing Director, BCA Academy of the Built Environment



MR ONG SEE HO

Director

Building Engineering Division

MR WONG WAI CHING

Director

Building Plan and Management Division



MR ONG CHAN LENG

Director

Special Functions Division

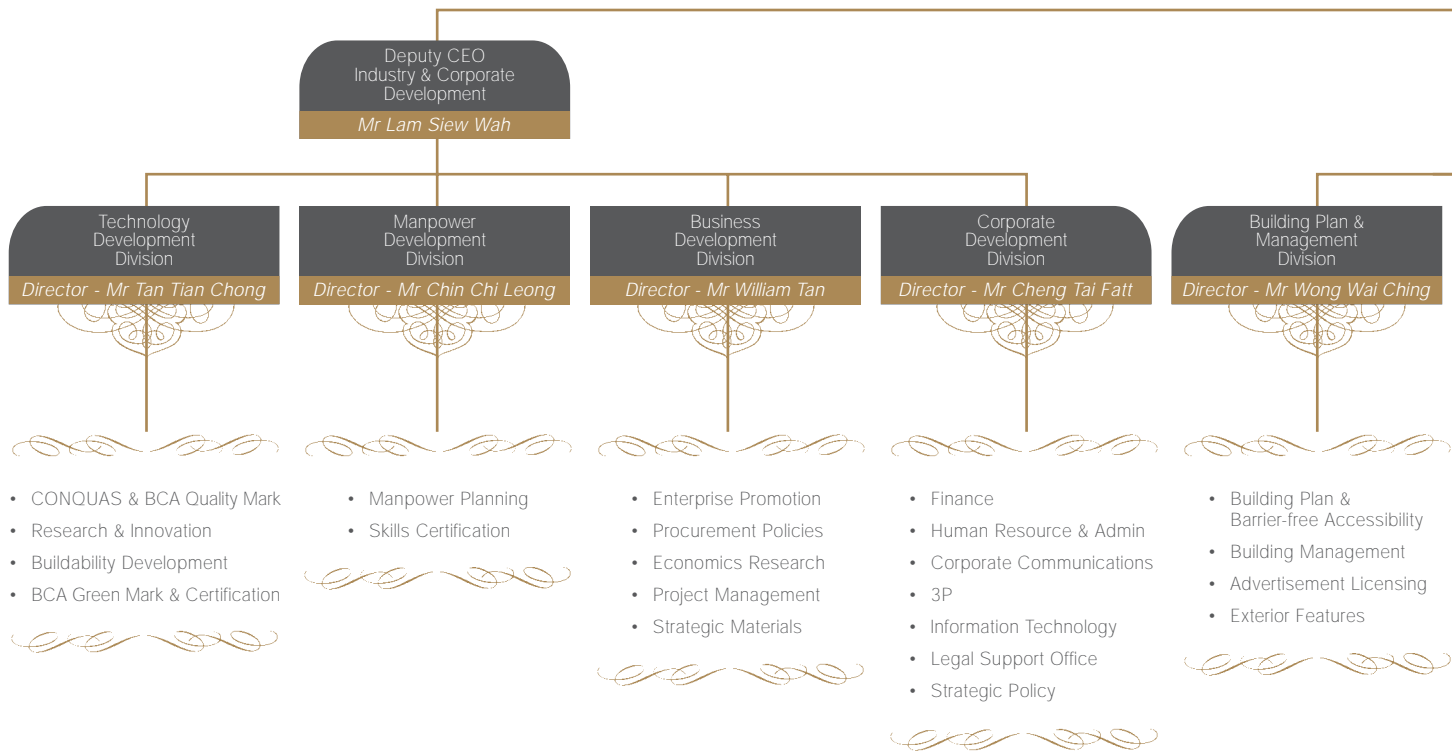


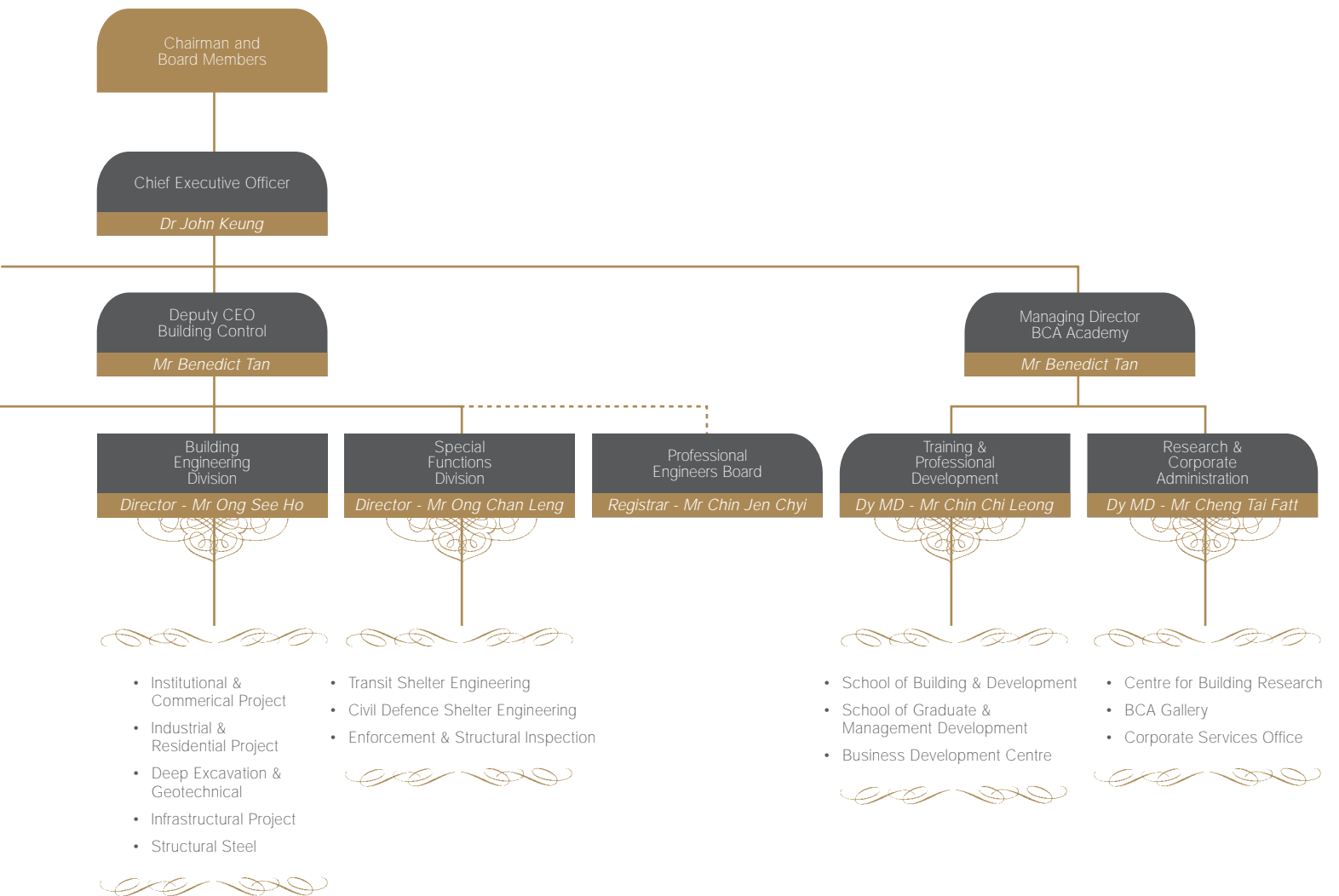
MR CHENG TAI FATT

Director, Corporate Development Division

Deputy Managing Director, BCA Academy of the Built Environment

ORGANISATION STRUCTURE









“Here at BCA, we view safety as paramount and place tremendous emphasis on it. Everything we do revolves around it. I recognise the role I play. As a key stakeholder for building a safe environment, I want to have a sanctuary that is safe for my family and fellow Singaporeans to live and work in.”

Julia Leu, Industrial & Residential Project Department



SAFE BUILT ENVIRONMENT

Improving building safety with amendments to Building Control Act

The MND-MOM Joint Review Committee on Construction Safety, which arose from the Nicoll Highway collapse, looked at the regulatory framework to see how construction safety could be improved. The review helped to shape BCA's action plan for safety.

Proposed amendments to the Building Control Act include:

- Regulating temporary earth retaining structures
- Licensing of general and specialist builders
- Requiring the set up of supervision teams to assist qualified persons to supervise structural works
- Ensuring independence of project parties in building works

Dialogue sessions were conducted with the industry, including Singapore Contractors Association Ltd, Institution of Engineers Singapore, and Association of Consulting Engineers Singapore, to go through the proposed amendments. A public consultation exercise was also held from 1 March 07 to 7 April 07 to invite comments on the proposed Building Control (Amendment) Bill.

Building world-class standards with International Panel of Experts

An International Panel of Experts has been formed during the year to assist BCA in reviewing the building control framework in an objective and systematic manner. Through this, we can tap on the experiences of pre-eminent experts on building safety and benchmark local practices with the best from around the world.

New standard improves professionalism of managing agents

BCA worked with SPRING Singapore on a new Singapore Standard (SS 519:2006) for Performance of Managing Agents for Strata Residential Properties. The Standard, launched at a joint seminar in August 06, aimed to harmonise the different practices and standards among property management service providers. It also served as a benchmark for management corporations to ensure that their estates are professionally managed.



We are enhancing building and construction safety by amending the Building Control Act and forming an International Panel of Experts to review our regulatory framework.





A new department at BCA oversees the safety of exterior features in our buildings, ensuring a safe living environment for everyone.

Enhancing safety of exterior features

A new Exterior Features Department was set up in August 06 to look into the safety of buildings' exterior features such as windows and sun-shades. Under the enforcement actions taken by the department, the incidence of fallen casement windows had reduced by about 75% compared to a year ago. The department is also working on a new standard to enhance the safety of exterior features.

Saving space and reducing the use of concrete with storey shelters

Together with the Singapore Civil Defence Force, a comprehensive review of the technical requirements for storey shelters was carried out during the year. The revised requirements provided architects with more flexibility in designing storey shelters, including staircase shelters. This had helped to further increase the use of staircase shelters, now prevalent in about 25% of private residential projects. Compared to conventional household shelters, storey shelters not only save functional space within the dwelling units but also reduce the use of concrete.

Assuring peace of mind with swift response

We are constantly on our toes to respond swiftly and efficiently to any emergency.

On 18 December 06 and 6 March 07, two earthquakes in Sumatra caused tremors in many buildings in Singapore. 155 private and commercial buildings were reported to experience tremors caused by the more severe 6 March 07 earthquake and 40 BCA engineers were immediately activated to inspect the structural integrity of these buildings. All the buildings were assessed to be safe and this helped to assure the public that buildings in Singapore are structurally sound.

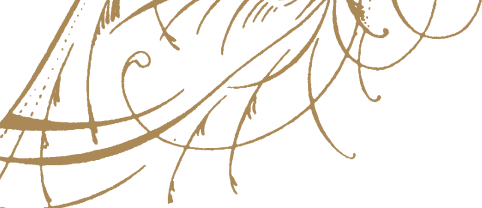
Following a prolonged period of intense rainfall, a spate of landslides on 19 and 27 December 06 and 12 January 07 had caused collapses of earth retaining walls and damage to surrounding landed houses. Our engineers were activated immediately to inspect the affected sites and houses. While making sure that measures were put in place to stabilise the failed slopes, BCA served closure orders on 17 affected houses to ensure safety of the occupants.



“In our industry, safety is of absolute importance. I am glad that in Singapore, we have a robust building regulatory system in place to ensure the utmost safety of everyone.”

Mr Lai Huen Poh, *Director, RSP Architects Planners & Engineers (Pte) Ltd*







You can rest easy as buildings in Singapore are sufficiently robust to withstand tremors caused by distant earthquakes.

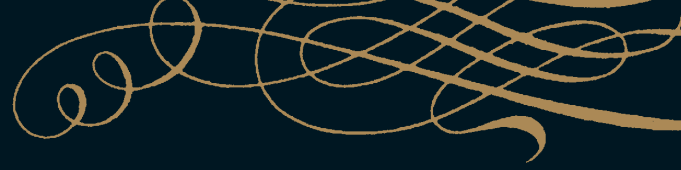



KEY STATISTICS SAFE BUILT ENVIRONMENT



- **6,017** structural plan submissions and **3,257** building plan submissions approved
- **2,410** site inspections conducted and **48** construction permits revoked
- **56** public shelters audited
- Served notices on owners of **8,500** buildings for periodic structural inspections
- **63** orders served on dangerous buildings, **24** closure orders to vacate unsafe buildings
- **103** unauthorised structures regularised and **130** demolished
- **899** Temporary Occupation Permits and **2,171** Certificates of Statutory Completion issued
- **199** notices served for illegal advertisement signs

** FY06 statistics unless stated*





“I enjoy working in an industry that prides itself on making quality its hallmark. Working in BCA, I relish the close partnership with our industry and the opportunity to help develop plans that improve our standard of living.”

Goh Thiam Lai, *CONQUAS Department*





*Savour the improved quality of living with our
CONQUAS and Quality Mark schemes.*



QUALITY BUILT ENVIRONMENT

CONQUAS and BCA Quality Mark leading to higher workmanship standards

BCA's Construction Quality Assessment System (CONQUAS) and Quality Mark scheme have led to significant improvements in the workmanship standards and the quality of the built environment.

In FY2006, CONQUAS was applied to 106 projects with a total contract value of \$3.2 billion. We stepped up efforts to promote greater adoption of these quality standards in a wider range of projects.

For the year under review, another 6 new developers joined the Quality Mark scheme, bringing the total number of participating developers to 23. Since the scheme was introduced in 2002, almost 16,000 residential units have been signed up for Quality Mark. To meet this demand, we have steadily built a substantial pool of 36 builders trained in Quality Mark, paving the way for the industry to deliver residential homes of consistently high quality to meet the expectations of homeowners.

In addition, CONQUAS and Quality Mark training modules were used to equip a critical mass of Quality Managers and Supervisors who work for developers, consultants and builders. We also identified builders who need help to attain higher CONQUAS scores and worked closely with them to achieve higher quality standards.

Estate Upgrading Programme

In our continuous drive to enhance the public areas of the estates and provide the residents with a higher quality built environment, we have in FY2006, completed the upgrading of 5 private residential estates. More estates will be upgraded in the coming years.



“As a leading developer, CDL places top priority in delivering homes of premier quality. We share BCA’s vision of achieving construction excellence in the building industry.

BCA’s quality schemes such as CONQUAS and Quality Mark have led to significant improvements in workmanship standards. We will continue to work with BCA to push the boundaries of building excellence; for a better living environment.”

Mr Eddie Wong, *General Manager, Projects Division, City Developments Limited*







*We have trained a critical mass of Quality
Managers and Supervisors in the industry on
CONQUAS and BCA Quality Mark.*



KEY STATISTICS QUALITY BUILT ENVIRONMENT



- CONQUAS applied to **106** projects
 - Average CONQUAS score achieved: **80.6**
- **2,598** new residential units committed for BCA Quality Mark
- **41** Quality Managers and Supervisors trained
- **6** Awards and **13** Merit certificates given out for Construction Excellence

** FY06 statistics unless stated*



“I’m delighted that BCA is an organisation that places a lot of importance on caring for the environment. Through its policies and various initiatives, we have been in the forefront of the green building movement in Singapore – this is something that I am extremely proud of.”

Tan Mei Ling, Research & Innovation Department





SUSTAINABLE BUILT ENVIRONMENT

Fine-tuning the BCA Green Mark scheme

To-date, a total of 61 projects were certified under the BCA Green Mark scheme. To keep pace with improvements in environmental technologies and industry best practices and standards, we fine-tuned the Green Mark assessment criteria in January 07.

A Green Building Guide for air-conditioned buildings was also produced to share with the industry good practices in the development, design and construction of buildings that promote positive environmental impact. These good practices were compiled from the various buildings certified under the BCA Green Mark scheme.

Public sector takes the lead towards environmental sustainability

The public sector has always been taking the lead towards environmental sustainability. To-date, these public institutional buildings have received the top “Platinum” Green Mark award:

- National Library Building
- Republic Polytechnic
- Nanyang Polytechnic
- Tan Tock Seng Hospital

In addition, we have been working with HDB to have all new public housing projects certified with the BCA Green Mark from January 07. The Eco-precinct at Punggol was the first public residential building to be awarded the Green Mark Platinum.

And with effect from 1 April 07, the government has also required all new public sector buildings and those undergoing major retrofitting to be Green Mark certified.

Educating the public and consumers on green buildings

As the industry gains momentum in adopting a sustainable approach in building development, there is a need to create a consumer-driven demand for high quality green buildings.

BCA has rolled out a comprehensive outreach programme to educate the public on the benefits of green buildings and sustainable construction. The BCA Green Mark Info-Portal (www.greenmark.sg) was launched in March 07 to educate homeowners on the various green building features and their benefits.

\$20m Green Mark incentive scheme

A \$20 million cash grant scheme, called the Green Mark Incentive Scheme, was introduced in December 06 to promote higher Green Mark ratings. Under the scheme, cash incentives will be given to developers and building owners who achieve at least a BCA Green Mark Gold rating in the design and construction of new buildings or the retrofitting of existing buildings. During the year, five projects have been granted incentives under this scheme.

HOME

CONTACT US

USEFUL LINKS

SITEMAP

KIDS PORTAL

QUICK LINKS:

Please Select Link:



BCA GREEN MARK

WHAT'S BCA
GREEN MARK

GREEN BUILDING
FEATURES

GREEN BUILDING
BUYING TIPS

FIND A GREEN
BUILDING

Green Buildings
for Healthy Living



WHAT'S BCA GREEN MARK

Introduction



BCA GREEN MARK

The BCA Green Mark Scheme was launched by the Building and Construction Authority (BCA) in January 2005 to promote environmental awareness in the building and estate sectors. It is a benchmarking scheme which aims to improve the environment by incorporating best practices in environmental management and the adoption of green building technologies.

Benefits of Green Mark

Green Mark provides a meaningful differentiation of buildings in the building and estate market. Benefits of having a Green Mark building include:

- Reduction in water and energy bills,
- Improve indoor environmental quality for a healthy living environment,
- Reduce potential environmental impact.

Search
Keyword

Award

ALL AWARDS

SEARCH

VIEW ALL



QUICK TIPS



The electrical appliances
such as air-con,
refrigerator,
label

Low
You should
immediately

Homeowners can learn more about green buildings at our BCA Green Mark Info-Portal (www.greenmark.sg).



\$50m MND Research Fund for green building technologies

A \$50 million MND Research Fund for the Built Environment was set up in December 06 to intensify Research & Development (R&D) efforts in green building technologies and energy efficiency.

This fund provides assistance to cover 30-75% of the qualifying cost of the project (subject to a cap of \$2 million per proposal), depending on the quality of the proposal and implementation potential. The inaugural Request-for-Proposal, which closed on 5 March 07, drew an overwhelming response - a total of 63 proposals were submitted.

Research & Development (R&D) on green technologies

BCA is embarking on a flagship R&D project with the National University of Singapore (NUS) to retrofit an existing block at the BCA Academy and transform it into an energy self-sufficient building. A showpiece for Green Buildings in the tropics, it will be deployed as a test-bed for state-of-the-art green building technologies and clean energy technologies such as intelligent shading, daylight harnessing devices and solar panels.

We also renewed our memorandum of understanding on green R&D with the NUS Centre for Total Building Performance and Denmark Technical University's International Centre for Indoor Environmental and Energy. In addition, we are co-leading with the Economic Development Board, the new Clean Energy Programme Office. Backed by \$350 million in government funding for technology development, this Office is expected to boost clean energy adoption in Singapore buildings.

Sustainable construction to enhance resilience of industry

Due to the temporary disruptions in the supply of sand and granite, the government has released the two materials from its stockpiles to provide stability and certainty to the market. We also worked with other agencies to open up more supply sources. Shipments of sand and granite from alternative sources have been arriving, both for replenishing our stockpiles and meeting the industry needs.

More importantly, we have laid out our Sustainable Construction Master Plan in 2007, with the ultimate goal of enhancing the resilience of the local building and construction industry and building up capabilities for sustainable construction.

The aim of the Sustainable Construction Master Plan is to reduce Singapore's heavy dependence on concrete by 30 to 50 percent over the next five years, and replace it with more sustainable alternatives. To achieve this, BCA is putting in place initiatives in three main areas:

- Addressing design and regulatory issues to facilitate sustainable construction adoption. This includes reviewing our regulations, exploring minimum legislative requirements for sustainable construction, setting new guidelines for structural steel design and giving expedited approvals for existing projects that want to switch to sustainable construction.
- Focusing on promoting R&D to facilitate the use of recycled materials.
- Stepping up promotion and education on sustainable construction methods such as steel construction and dry walls to both the industry and consumers, so that there is greater awareness of the benefits and advantages of sustainable construction.

Ultimately, we aim to enhance the resilience of our industry and advance it towards the use of more environmentally friendly and less labour-intensive methods of construction. These methods are faster and quieter, thus improving the quality of life here as we strive for a sustainable built environment.



*With sustainable construction, the resilience of
the industry will stand stronger.*







“I am delighted to hear of the measures initiated by BCA to support and develop a more environmentally-friendly and sustainable building industry, both locally and abroad. I am sure that this far-sighted approach by BCA will earn it many dividends - economic, social and environmental.”

Dr Geh Min, *President, Nature Society of Singapore*





We are promoting clean energy adoption in Singapore buildings, for a sustainable built environment, now and in future.



Eco-precinct at Punggol – The first public residential building to be awarded BCA Green Mark Platinum.

KEY STATISTICS SUSTAINABLE BUILT ENVIRONMENT



• **27** new Green Mark projects

• **5** projects approved under Green Mark Incentive Scheme

• **63** proposals received under MND Research Fund

• **\$70** million funding for Green Mark and green building technologies research

** FY06 statistics unless stated*





“The challenging and dynamic nature of my role is what I like most about working for BCA. I am glad to be part of the team that helps Singapore move towards a more gracious and caring society.”

Chan Sin Kai, *Building Plan Department*





The Code on Barrier-Free Accessibility in Buildings will be revised to cater to the needs of a larger group of users in the built environment.





FRIENDLY BUILT ENVIRONMENT

Review of code to ensure seamless barrier-free accessibility

The Code on Barrier-Free Accessibility in Buildings is under review by a Review Committee, which is chaired by BCA and comprises representatives of relevant public agencies, the industry and end-user associations. To be ready in the coming year, the revised code will ensure that buildings are accessible not only to wheel-chair users but also to people with other needs.

Improving accessibility features for existing buildings

BCA has planned a 5-year Barrier-Free Accessibility (BFA) Upgrading Programme to support the upgrading of existing buildings. To encourage owners to upgrade private commercial and institutional buildings built before the implementation of the BFA Code in 1990, the government has set aside \$40 million from FY07 onwards to co-fund the provision of basic accessibility features in these buildings. BCA will co-pay up to 40% of the BFA works subject to a cap of \$150,000 per building.

In addition, a list of barrier-free buildings was published in the BCA website to raise public awareness. Besides being a useful reference, the list also served as an encouragement for building owners to make their buildings more accessible for all users.

New requirements for interconnectivity

Since October 06, BCA requires Qualified Persons to submit Access Route Plans - thus ensuring a friendly built environment through the provision of seamless interconnection between buildings and infrastructure. It will also prompt architects and designers to incorporate barrier-free accessibility into the design at an early stage. And from 1 April 07, residential units are required to have at least one bathroom large enough to be retrofitted with elder-friendly features when the need arises.



A new accessibility fund provides incentives for owners to ramp up on basic accessibility features in existing private buildings.



Promotion of universal design principles in the built environment

In support of "ageing-in-place" and an inclusive society that caters to the diverse needs of all users, BCA has been actively promoting universal design principles in the built environment. To reach out to the industry and stakeholders, BCA has organised seminars and courses and also published the Universal Design Guide for Commercial Buildings, which was launched by the Minister of National Development in September 06.

Recognising outstanding achievements for a friendly built environment

Organised by BCA jointly with the Singapore Institute of Architects and the Handicaps Welfare Association, the Universal Design Award was introduced in September 06 to honour building owners, developers and designers who embrace barrier-free accessibility and universal designs in their developments. Through the introduction of this award, we hope to encourage more players in the industry to join in and create a truly barrier-free and friendly built environment for an inclusive society.

New technology to facilitate the operation and management of special facilities

BCA is collaborating with Ngee Ann Polytechnic to develop a universal solution using Radio Frequency Identification (RFID) technology. This RFID technology could facilitate the operation and management of special facilities such as stair-lifts, platform lifts, toilets and car parking lots, which are commonly mis-managed.



“I am happy to learn of BCA’s efforts in creating an accessible living environment for everyone. It is important to spare a thought for every facet of society as we progress as a nation.”

Patrick Ang, *Member, Handicaps Welfare Association*







The inaugural Universal Design Award for the built environment saw IKEA Tampines clinching the top Gold award.

KEY STATISTICS FRIENDLY BUILT ENVIRONMENT



• **524** barrier-free buildings listed in BCA website

• **337** applications, winners for inaugural Universal Design Award

• **\$40** million accessibility fund to promote universal design in upgrading of existing private buildings

** FY06 statistics unless stated*



“We work very closely with the building industry to deliver an excellent built environment. I am happy to be able to play my part in enhancing their knowledge and technology. Together, we can work towards creating the best living environment for everyone - for now and the future.”

Wong Mee York, *BCA Academy*







TRANSFORMING THE INDUSTRY

Academy for training and research on the built environment

BCA Academy of the Built Environment, formerly known as the Construction Industry Training Institute, will be the education and research arm of BCA.

The Academy aims to serve as the national centre for the quality training and education of craftsmen, technical and professional personnel of the industry, and for research and development on the built environment. It will play a key role in ensuring that the skills and expertise required to shape a safe, high quality, sustainable, and friendly built environment are readily available.

Building up core of skilled foremen and tradesmen

The CoreTrade (Construction Registration of Tradesmen) Scheme was formulated to build up a permanent core of skilled workers. It will be implemented as part of the requirements for Licensing of Builders under the Building Control Act. To increase skills levels and encourage effective use of skilled foreign workers, we also worked with MOM to raise the low-skilled workers levy and remove the unskilled workers levy for traditional source workers.



*The BCA Academy of the Built Environment aims
to be a national education and building
technology hub for the delivery of an excellent
built environment.*



We actively reach out to potential entrants to promote the rewarding careers in the booming building industry.





Attracting talents to a booming industry

There are many exciting career opportunities in the booming building industry. During the year, through school talks, seminars, exhibitions, career fairs as well as advertisements in the newspapers, buses and MRTs, we actively reached out to potential entrants to educate and promote the various rewarding building professions.

Strengthening contractors registry requirements

The requirements of the Contractors Registry System were strengthened to better monitor firms' financial health. As an added check on the firms' financial standing, a third party credit rating system was introduced for firms in the top three grades. The rating will offer firms an objective measure and a practical way to manage their own financial and credit standing, which in turn will give their clients some assurance that the firm is well-managed.

Promoting export of construction related services

A new business entity, BCA International, was set up during the year. This newly formed subsidiary will be poised to promote and secure the export of building and construction services for the industry and also export our expertise in building control and industry development.



“BCA Academy has enabled me to further my knowledge in the latest industry trends and technology – allowing me to contribute to an excellent built environment for Singapore.”

Mr Aaron Chia, *Resident Engineer*







Taking to new heights, BCA International, our new subsidiary, will promote the export of services of BCA and the building industry.



KEY STATISTICS TRANSFORMING THE INDUSTRY



- Physical productivity of **2.55** man days per sq metre
- More than **11,000** personnel trained in BCA Academy
- **29,189** workers skill-tested and **19,201** certified
- **38** school talks conducted
- **\$2.1** billion overseas construction projects clinched in 2006
- **359** overseas consultancy projects clinched in 28 countries in 2006

** FY06 statistics unless stated*





"With the staff development plan, I take comfort in the fact that BCA has my career needs and aspirations well taken care of. My colleagues and I are motivated and geared towards the organisation's goal of delivering the best built environment. It is something we are all working together to achieve."

Joseph Lim, *Enforcement & Structural Inspection Department*



ORGANISATION EXCELLENCE

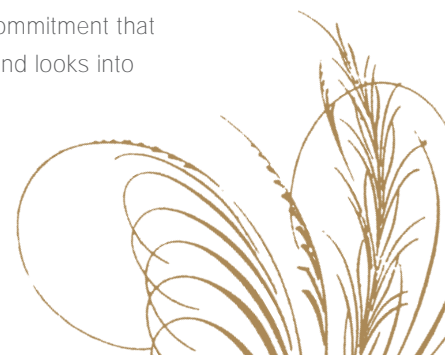
E-services to further improve customer satisfaction


Several new IT systems were rolled out to further improve our service to customers:

- An online application system to obtain copies of building plans/information
- An e-mail notification service to inform the Qualified Persons of the status of their plan applications instantly
- An e-payment service for building plan applications and contractors registration fees
- A database for contractors to easily confirm the site supervisors for their projects based on the list of qualified site supervisors registered in Singapore

Training and career development for our people

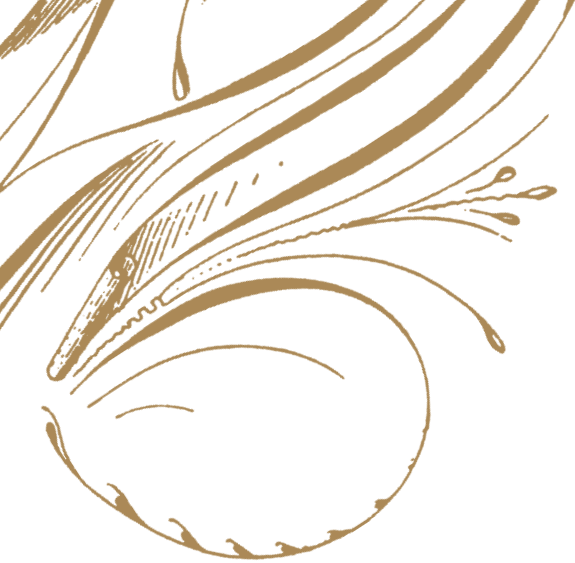
BCA believes that people are our biggest asset and it is only through their passion and commitment that we will achieve our new vision and mission. As such, BCA invests in our human capital and looks into their needs and aspirations as they progress in the organisation.





We have implemented a strategic staff development plan that lays out the strategies for BCA to build up our human capital to move the organisation forward. Greater focus is placed on staff learning and growth so that they will have a reason to stay, the willingness to contribute and the motivation to excel in BCA. The plan includes:

- A Total Training Plan developed to build up staff's in-house expertise in technical areas and to support our strategic thrusts.
- A staff-initiated short attachment programme to enable staff to take charge of a larger part of their own technical and professional development. This complements our existing professional staff attachment programme where some key officers are sent for one-year practical attachment to the private sector. Such attachment stints deepen and widen the competencies of our officers and provide them with the opportunity to gain first-hand experience.
- The Associate Professional Scheme for better performing and high-potential technical officers provide them with career advancement opportunities. It is based on meritocracy and is a performance-based system that motivates our people to perform the best they can, reach their full potential and improve the organisational effectiveness. Opportunities will also be given to high-potential and better performing Associate Professionals to be promoted to the Professional scheme.
- Overseas programmes for our senior management in senior executive programmes such as Asian International Executive Program by INSEAD and Breakthrough Programme for Senior Executives by IMD (Switzerland). These programmes keep them abreast with latest global management skills and international business strategies. Middle management staff were also provided with training in coaching and crisis communication skills.



“Through the continued improvements in the environment, I believe that BCA is committed to making a difference in the lives of people in Singapore – making this a better place for us to live, work and play in.”

Mr Henry Ong, *homeowner*

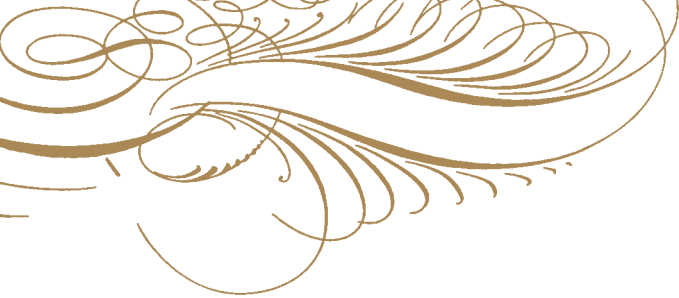






With new initiatives in staff development and internal communications, our people are motivated and aligned to the organisation's mission and vision.





Enhancing internal communication

To ensure that everyone steers the ship in the right direction and have their hearts and minds unified as one, we have introduced various internal communication channels to improve communication within the organisation. These include:

- Staff engagement sessions to internalise the new vision and mission to our people
- Staff conferences to unveil the new vision and mission, and update staff on the organisation's plans
- Regular CEO tea-sessions with staff to keep them posted on management's initiatives and to seek their feedback
- A revamped intranet with regular updates on our initiatives and regular interviews with staff
- A quarterly on-line staff newsletter to keep our people informed of the happenings in BCA

Launch of Service Quality Day

Our inaugural Service Quality Day, held on 23 Nov 06, saw our CEO and top management serving customers at the service counters to underscore the importance of excellent customer service at all levels in BCA.

In addition, our staff were delighted to be served refreshments by our senior management. This underlines their commitment to excellent service for internal customers.

To further spearhead good service, a new Service Excellence Award scheme was implemented to develop service role models and create service champions in BCA.

Enhancing staff well-being

Recognising the importance of workplace health, BCA implemented a new healthy lifestyle programme for staff. Every week, staff can participate in sports and exercises together for a healthier lifestyle, and at the same time, forge closer bonds with colleagues.



We reward our people for rendering excellent service to external and internal customers with a new Service Excellence Award scheme.



Through a new healthy lifestyle programme, we encourage staff to exercise regularly for healthier minds and bodies.



KEY STATISTICS ORGANISATION EXCELLENCE



• **\$7,515** raised for adopted charity, Fei Yue Community Services

• **88** hours of training for each staff

• **41** staff placed on Associate Professional scheme

• **22** awards offered to staff under BCA's Service Excellence Award scheme

** FY06 statistics unless stated*

ACKNOWLEDGEMENTS



BCA would like to thank these organisations and people for their participation in the annual report pictures:

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Far East Organization
Housing and Development Board
Ikano Pte Ltd
JTC Corporation
Maritime and Port Authority of Singapore
RSP Architects Planners & Engineers (Pte) Ltd
Sentosa Golf Club
Singapore Power
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Mr Aaron Chia
Mr Alex Tan
Mr Eddie Wong
Mr Henry Ong
Mr Lai Huen Poh
Mr Monteiro Simon
Mr Patrick Ang

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Jamal bin Hashim
Joseph Lim
Josephine Seet
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5 Maxwell Road #16-00 Tower Block MND Complex Singapore 069110
Telephone: 65 6325 7720 Facsimile: 65 6325 4800 www.bca.gov.sg

