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Best view with Internet Explorer 5.5 or above. Flash 6.0 plug in.

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Architectural Services Department (ArchSD) of the Government of the Hong Kong Special Administrative Region (HKSAR) is publishing our fourth annual sustainability report. This report, following our previous annual sustainability reports, outlines our operations and performance under the framework of sustainable management in environmental, social and economic aspects. It also serves as a communication platform between ArchSD and our stakeholders and aims at reaching sustainable development within ArchSD and eventually the community.

**Reporting Scope and Boundary**

This Sustainability Report 2007 includes the status and performances of ArchSD's sustainability management from 1 January 2006 to 31 December 2006. There was no significant change during the reporting period regarding the size, structure and ownership of the Department.

Data are presented as absolute figures and, for priority issues, normalised into comparable terms where appropriate and practicable. Quantitative data are presented for all our six branches, excluding data from contractors and suppliers, unless otherwise stated. Qualitative information covers all our direct activities unless otherwise stated. Financial data are recorded according to financial year ended 31 March 2007. All monetary values are in Hong Kong Dollars.

**Reporting Principles**

This Report follows both the HKSAR Government's Circular Memorandum No. 1/2007 "Controlling Officer's Environmental Report", the Global Reporting Initiative (GRI) G3 Guidelines and its Sector Supplement for Public Agency. The Report fulfils the requirements of "A+" level defined by the application level system of GRI G3 Guidelines. A GRI Content Index is provided to facilitate referencing.



With the basis of G3 Guidelines and expectation of our major stakeholders, the report content is jointly formulated and prioritised by our Integrated Management Unit, representatives from various branches and our external consultant under the direction of Deputy Director of Architectural Services. We have also obtained independent verification on our report.



Report Application Level	C	C+	B	B+	A	A+
<b>G3 Profile Disclosures</b> OUTPUT	Report on: 1.1 2.1 - 2.10 3.1 - 3.8, 3.10 - 3.12 4.1 - 4.4, 4.14 - 4.15	Report on all criteria listed for Level C plus: 1.2 3.9, 3.13 4.5 - 4.13, 4.16 - 4.17	Report on all criteria listed for Level B	Report on all criteria listed for Level B	Same as requirement for Level B	Report on each core G3 and Sector Supplement* Indicator with due regard to the Materiality Principle by either: a) reporting on the Indicator or b) explaining the reason for its omission.
<b>G3 Management Approach Disclosures</b> OUTPUT	Not Required	Report Externally Assured Management Approach Disclosures for each Indicator Category	Report Externally Assured Management Approach Disclosures for each Indicator Category	Report Externally Assured Management Approach Disclosures for each Indicator Category	Report Externally Assured Management Approach Disclosures for each Indicator Category	Report Externally Assured Management Approach Disclosures for each Indicator Category
<b>G3 Performance Indicators &amp; Sector Supplement Performance Indicators</b> OUTPUT	Report on a minimum of 10 Performance Indicators, including at least one from each of: Economic, Social and Environmental.	Report Externally Assured Report on a minimum of 20 Performance Indicators, at least one from each of Economic, Environmental, Human rights, Labor, Society, Product Responsibility.	Report Externally Assured Report on a minimum of 20 Performance Indicators, at least one from each of Economic, Environmental, Human rights, Labor, Society, Product Responsibility.	Report Externally Assured Report on a minimum of 20 Performance Indicators, at least one from each of Economic, Environmental, Human rights, Labor, Society, Product Responsibility.	Report on each core G3 and Sector Supplement* Indicator with due regard to the Materiality Principle by either: a) reporting on the Indicator or b) explaining the reason for its omission.	Report on each core G3 and Sector Supplement* Indicator with due regard to the Materiality Principle by either: a) reporting on the Indicator or b) explaining the reason for its omission.

\*Sector supplement in final version

## Architectural Services Department - Sustainability Report 2007 - Introduction

### Note to Reader:

This Report is published on the internet and CD-rom, in a web-based interactive html version and text version in three languages (English, Traditional Chinese and Simplified Chinese) respectively.

The content accessibility is enhanced by the following features:

- On-screen font size setting provides more comfortable reading options for various users.
- Text only version allows readers using assistive tools for web browsing.

Dear Stakeholders,

It is my privilege to introduce to you ArchSD's Sustainability Report 2007. This report delivers our initiatives and accomplishment in contributing to sustainable development within the Department, as well as among our stakeholders and society. Evolving from annual reporting on our environmental issue in 1998, we endeavour to move towards a greater balance among aspects of sustainability and increased transparency in our reporting mechanism.

Year 2006 has been a memorable year for ArchSD. It marked the 20<sup>th</sup> anniversary of the Department. For the past twenty years, ArchSD has been fulfilling our mission and core values to be a professional and responsible advisor and works agent for public buildings and facilities. To celebrate this remarkable year, a number of activities, including seminars and competitions, were organised not only sharing our expertise and achievements with our stakeholders, but also fostering our commitment to strive for the best in serving the community.

Another top agenda item that has become an important part of public discussion is the climate change and clean air. Although we are not a major producer of greenhouse gas and other air pollutants, we fully supported the initiatives of the Chief Executive, HKSARG, in joining the signatories of "Clean Air Charter" and "Action Blue Sky" campaign. These initiatives included strengthening our on-going energy conservation programmes, monitoring closely of our performance and regular reporting of our achievements in combating the global warming.

In 2006, we have successfully achieved our planned objectives and targets, and the Department was honoured with various awards presented by international and local professional organisations. We were also recognised as one of the three architectural practices that have won the most awards from 1965-2005 in the Annual Awards of the Hong Kong Institute of Architects.

Following the commencement of the tendering exercise for the Tamar Development Project in 2006, ArchSD has worked closely with various stakeholders to design a better Central Government Complex, Legislative Council Complex, Civic Place and ancillary facilities at Tamar. Another Mega project - Hong Kong-Shenzhen Western Corridor will be completed in 2007 denoting an enhancement in better connection within the Pearl River Delta Region.

Engaging our stakeholders, especially through client satisfaction survey and Post Occupancy Evaluation, will continue to be one of our top priorities in 2007. ArchSD will also move forward with the new challenges under the Re-engineering Programme based on the recommendations of the comprehensive review completed in 2006.

Lastly, we will continue to devote our efforts to work towards sustainable development and to address issues of concern that our customers and other stakeholders have. We welcome your feedback and comments about our report through the electronic or facsimile submission of feedback form.



A handwritten signature in black ink that reads "Yue Chi Hang".

Yue Chi Hang, JP  
Director of Architectural Services

## ***Our Department***

ArchSD is the works agent for HKSAR Government facilities development. The three main areas of our services are:

- **Monitoring and advisory services** - to provide effective professional and technical advice to the Government and quasi-government organisations and to oversee subvented, joint-venture and entrusted projects;
- **Facilities development** - to provide efficient, cost-effective and timely architectural and associated professional and project management services for the design and construction of buildings and related facilities; and
- **Facilities upkeep** - to provide efficient and cost-effective professional and project management services for the maintenance and refurbishment of buildings and facilities.

## ***Key Facts about ArchSD***

**Founded on:** 11 April 1986

**Staff Establishment:** 1,766 (as of 31 March 2007)

**Headquarters:** Queensway Government Offices, 66 Queensway, Hong Kong

**Other Office Locations:** APB Centre, Hunghom, Kowloon

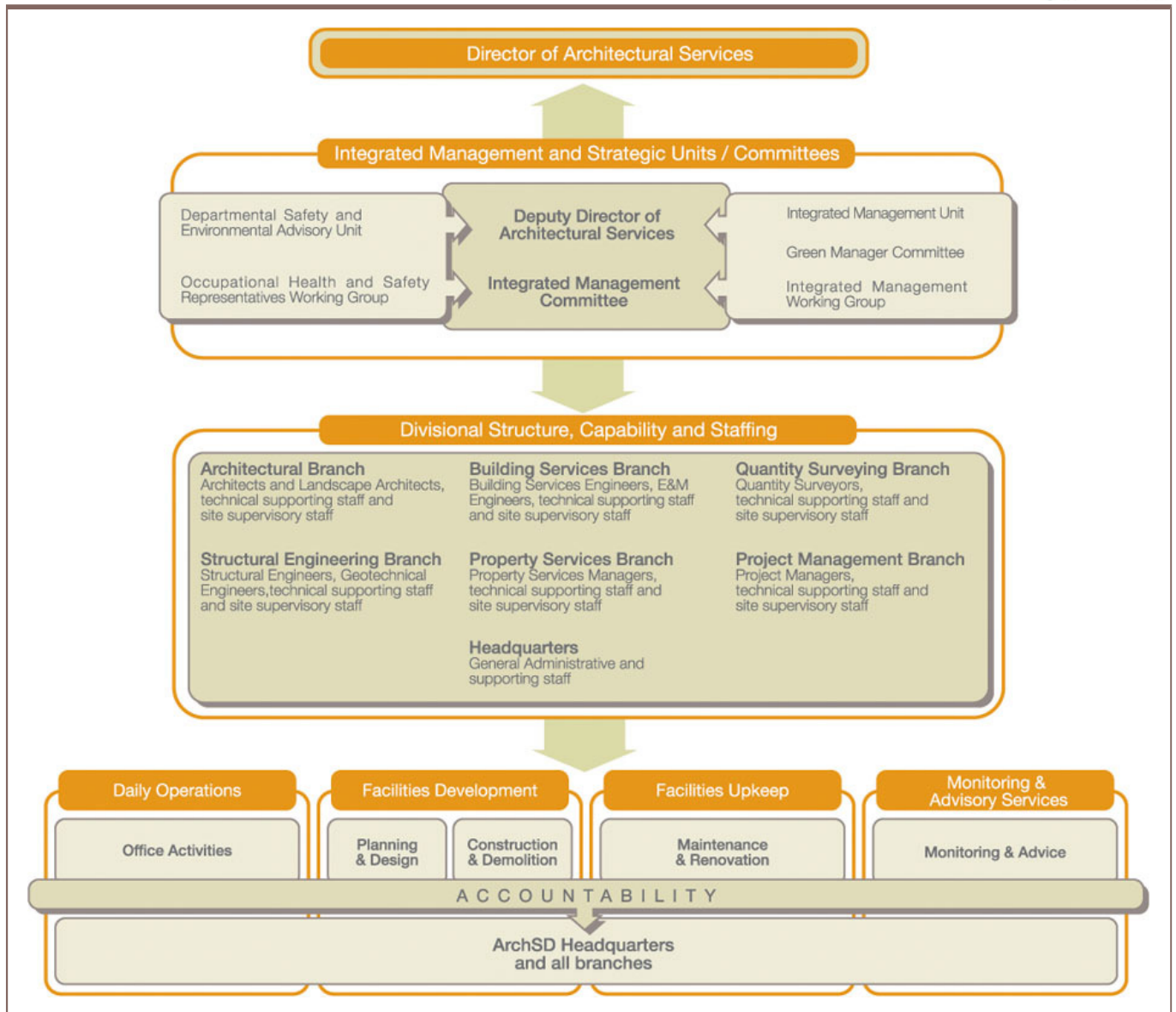
**Total Office Spaces:** Approximately 23,000 m<sup>2</sup> (as of 31 December 2006)

**Scale of Services:** (as of 31 March 2007)

- Number of Subvented / Entrusted projects reviewed: 1,083
- Number of Facilities Development Projects completed: 58
- Building Floor Area of Properties maintained: 27,707,000 m<sup>2</sup>
- Expenditure on Facilities Development Projects: HK\$ 5,681.4 million
- Expenditure on Facilities Upkeep works: HK\$ 3,478.3 million
- Value of the Subvented / Entrusted projects reviewed: HK\$ 42 billion
- Value of New works under development: HK\$ 54 billion

## Organisational Structure

### Organisational Structure of 31 March 2007.

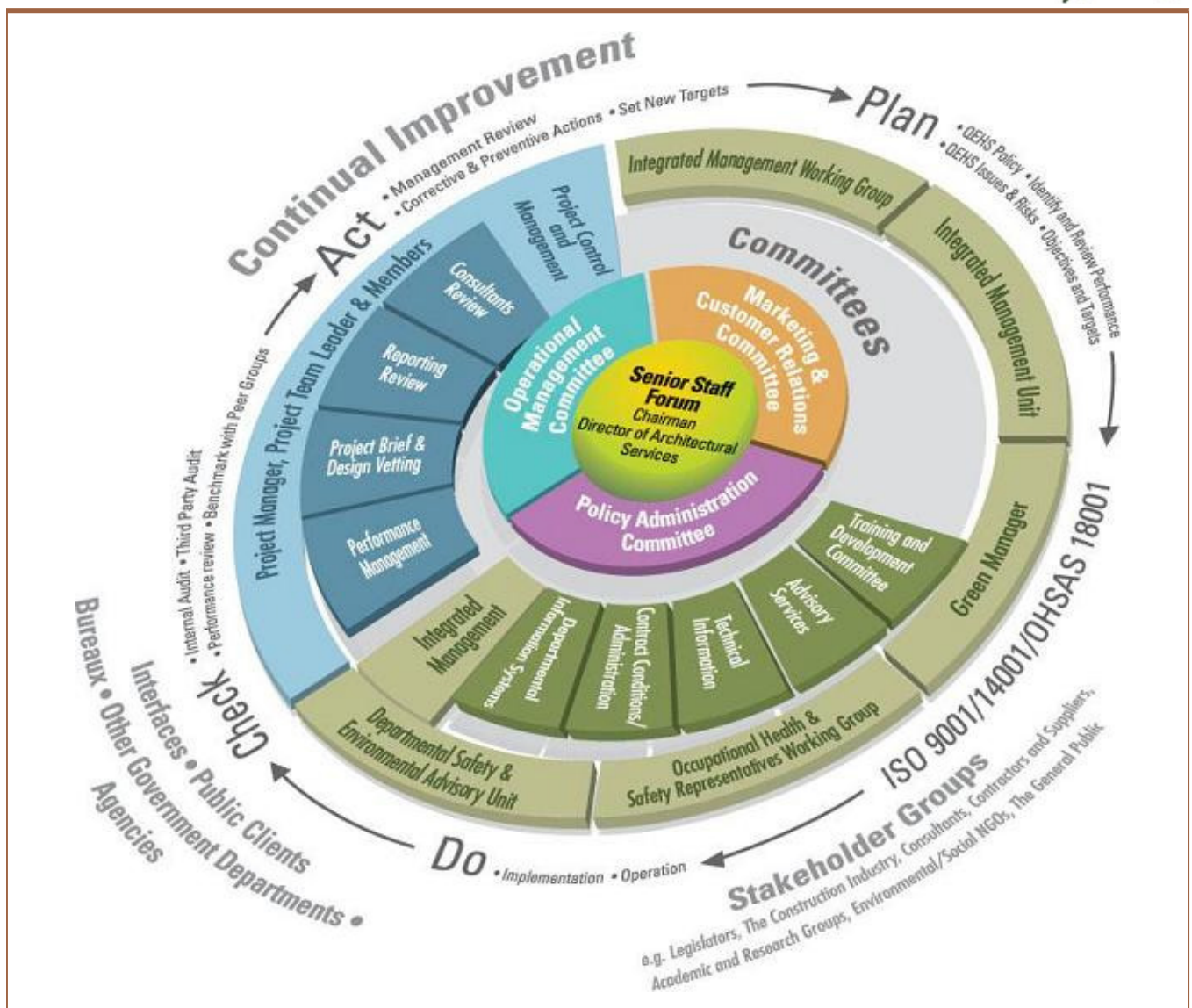


## Governance Structure

Besides meeting international standards on sustainable development, we have long recognised the importance of identifying, monitoring and improving our operation and services on environmental, social and economic issues. Impacts from our services on the environment and our stakeholders are handled by our Integrated Management System which is primarily developed under the ISO 9001, ISO 14001 and OHSAS 18001 requirements and incorporated with policies and principles engaged by ArchSD.

The System is governed by the Integrated Management Committee under the direction of the Senior Staff Forum and Policy Administration Committee. This Forum and our Committees are comprised of members from different branches and functions to ensure the effectiveness of this systematic management approach towards sustainable development.

### Governance Structure in 2006





## ***Vision and Values***

### **Our Vision**

To maintain our position as the leading practice for procuring and maintaining community facilities

### **Our Mission**

To provide services in a professional manner

### **Our Core Values**

- Cost and time efficient project delivery
- High professional quality standards
- Responsible practices and sound environmental, health and safety performance

### **Quality, Environmental, Health & Safety Policy**

#### **To plan, design, procure, maintain property and advise professionally**

Architectural Services Department, when offering our Clients a comprehensive range of multi-disciplinary professional and technical services for public buildings and facilities, is committed to:-

- a) Fulfil the agreed requirements of our Clients to the highest professional standards.
- b) Deliver our services in an environmentally responsible manner by implementing conservation of energy, preventing pollution and reducing the consumption of natural resources.
- c) Manage our health and safety risks to ensure a safe and healthy environment for our staff, our contractors and other people who may be affected by our work.
- d) Comply with all relevant legislations and other requirements, and wherever practicable, to achieve standards beyond those that are legally required.
- e) Provide adequate resources and training to all staff and provide appropriate training to persons working for or on behalf of ArchSD, to continually improve our quality, environmental, health and safety performance and effectiveness.
- f) Promote ArchSD's principles of quality, environmental sustainability, health and safety to our partners in work, the construction industry and the general public.

## Risk Management

We see environmental, social and economic issues as risks as well as opportunities for sustainable development. <sup>1</sup>Precautionary approach in managing potential risk occurrence has been fully incorporated into our Integrated Management System. The principle of "Plan, Do, Check, Act" cycle in our System is the rule of thumb in processing any major initiatives or changes in our operation and management. Preliminary review in identifying potential impacts to the environment, society and economy are also conducted or taken into consideration during the decision making process. Details on our approach to manage relevant environmental and social risks are discussed in the following sub-sections.

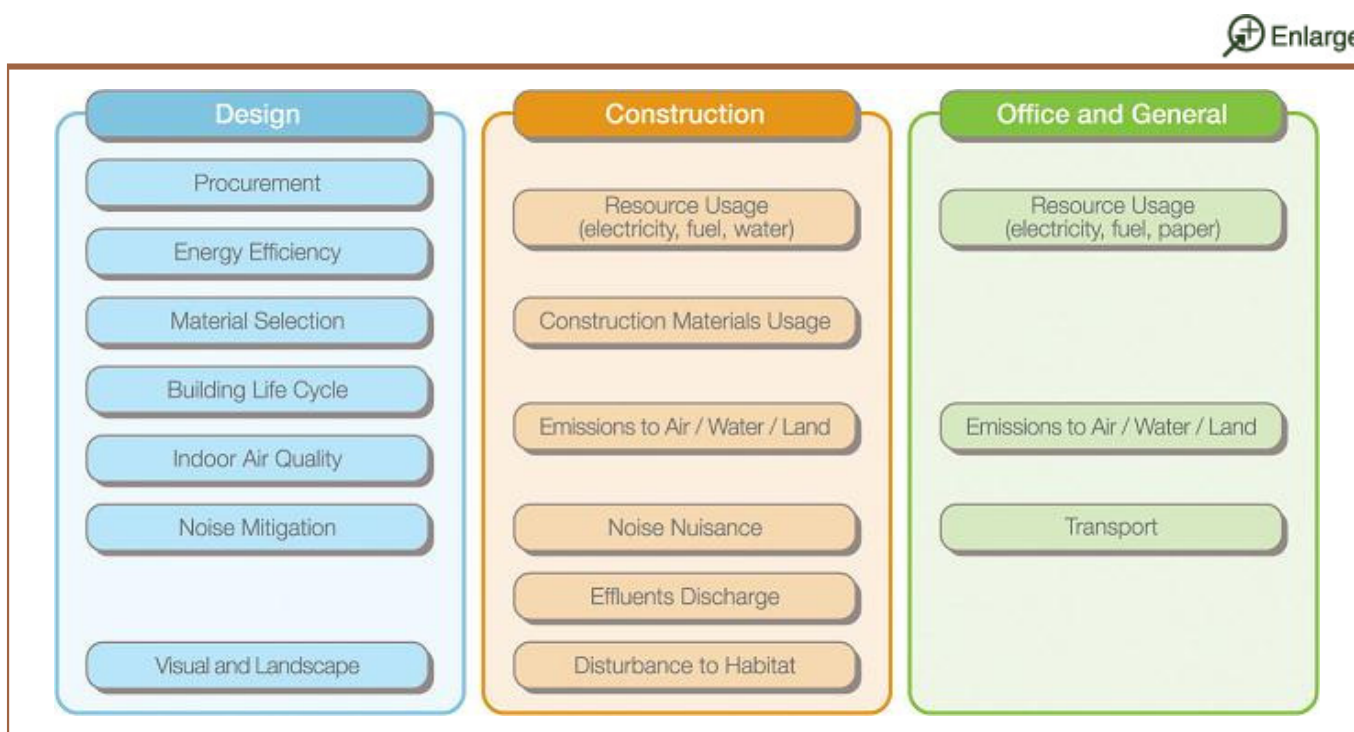
At the project level, risk analysis and associated cost estimation are conducted for public works project following the Environment, Transport and Works Bureau Technical Circular (Works) No. 22/93 on "Estimating Using Risk Analysis" and 6/2005 on "Implementation of Systematic Risk Management in Public Works Projects". The overall process is under the supervision of the Development Bureau.

The risk management process comprises a systematic risk planning, identification, analysis, evaluation and treatment process which is conducted with appropriate recording, monitoring and reviewing of the risks so identified, together with effective communication and consultation with various stakeholders and project participants.

## Managing Our Impacts on the Environment

As the key professional service provider for public buildings in Hong Kong, our operations are primarily office-oriented and construction-related, and our services impinge on the environmental friendliness of municipal facilities.

### Major Environmental Impacts of ArchSD Operations



## Engaging Our Stakeholders

Stakeholder engagement has been listed as one of our top priorities. The nature of our services and operations has an impact of different intensity on our stakeholders. Through years of annual reporting experience, we have identified our key stakeholders and prioritised our report content with the consideration of their valuable feedback and comments.

### ArchSD and Stakeholders



More details on how we engage with our key stakeholders are discussed in the following sections of this Report:

[Our People](#) - Employees

[Our Clients](#) - Government and related public organisations

[Contractors and Suppliers](#) - Construction and industry partners, suppliers, consultants and contractors

[Public Engagement](#) - General Public

### Commitments to External Initiatives

Voluntary involvement with various sustainability initiatives is part of our proactive approach in managing various environmental, social and economic issues. The website of these local and international initiatives and associations are provided as follows:

#### Sustainability Initiatives

[Clean Air Charter](#)

[Volunteer Movement](#)

[Global Reporting Initiatives](#)

#### Membership Entries

[Hong Kong Institute of Architects](#)

[Hong Kong Institution of Engineers](#)

[The Hong Kong Institute of Surveyors](#)

Institution of Structural Engineers

The Chartered Institution of Building Services Engineers

Royal Institution of Chartered Surveyors

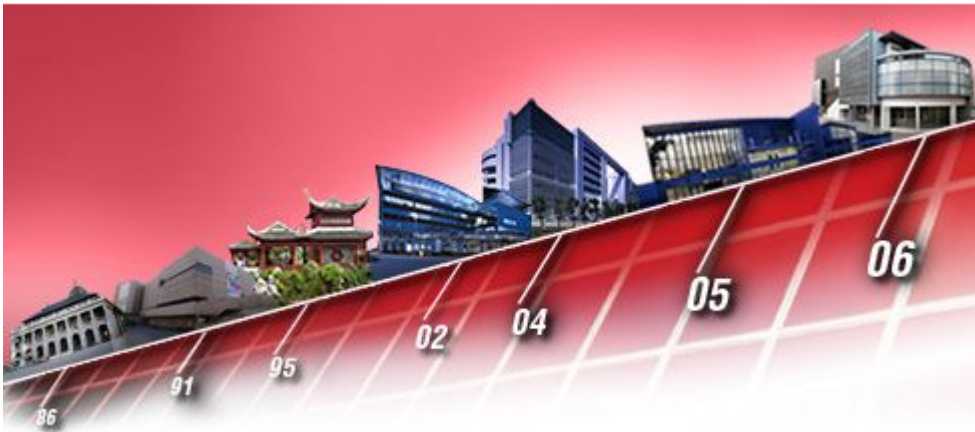
Chartered Institute of Architectural Technologists

American Society of Heating, Refrigerating and Air-Conditioning Engineers

International Council for Research and Innovation in Building and Construction

<sup>1</sup> Precautionary approach is introduced in Article 15 of the Rio Principles.

## Our 20<sup>th</sup> Anniversary



As we have approached a new milestone, our 20<sup>th</sup> Anniversary, our ambition is to continue to become a forefront leader in steadily driving sustainability in Hong Kong. We organised a series of events to celebrate this memorable year with our clients, partners, employees and the general public.

### Engaging Our Clients and Partners

Our clients, business partners and professionals in the design and construction industry were invited to participate in various seminars to foster professional design installations and visualise the best practices for sustainable buildings. Our architectural, structural engineering, building services, quantity surveying and maintenance surveying specialists have also taken the opportunity to share their expertise and reviews on the development of sustainable facilities in Hong Kong. The topics of seminars included a wide spectrum of design and build of public facilities, new technologies and design tools, risk management and cost effectiveness.

- 26 January 2006 Design and Build Symposium
- 20 March 2006 Seminar on Mediation Techniques
- 20 May 2006 Professional Workshop on "Forefront of Building Services Design and Technologies"
- 28 June 2006 Seminar on Schedule of Accommodation for new Secondary School premises



Director of ArchS delivered the opening speech at the Design and Build Symposium.



Speakers shared their insights in mediation techniques during the seminar.



Booklet of technical papers was distributed at the Professional Workshop and "Forefront of Building Services Design and Technologies"

- 23 and 26 August 2006 Large-span Structures - Seminar and Visits
- 2-3 November 2006 Inaugural Asia Pacific Value Convention 2006 - "The World of Innovation - Managing Value, Risk & Relationships"



Technical visit at Hong Kong Museum of Coastal Defense on 26 August 2006.



One of our keynote speakers presented in "The World of Innovation – Managing Value, Risk & Relationships" conference.

A number of publications exhibited our commitment and contribution in developing and maintaining many public buildings and facilities over the past 20 years. They are listed as follow:

- Publication of "Post 97 - Public Architecture in Hong Kong"
- Publication of "Growing with Time - 20th Anniversary of PSB/ArchSD"
- Publication of "The Review and Outlook of the QSB and the QS Profession" Booklet
- Site Supervision Best Practices Golden Reminders



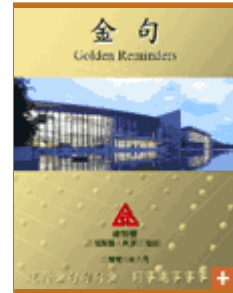
Post 97 - Public Architecture in Hong Kong



Growing with Time - 20th Anniversary of PSB/ArchSD



The Review and Outlook of the QSB and the QS Profession



Site Supervision Best Practices Golden Reminders

### Engaging Our Employees

Encouraging an interest in sustainable development and fostering the concept of conservation, three guided tours were conducted for our employees and their families. Through the appreciation and understanding of local heritage, we wished to convey the importance of cherishing our traditions.

- 22 April 2006 One Day Local Heritage Tour 2006: Wetland Park, Ping Shan Heritage Discovery Centre
- 21 October 2006 One Day Heritage Tour to Macau
- 28 October 2006 A Visit to Kom Tong Hall - Dr. Sun Yat-sen Museum



### Engaging the Public

To inform the general public of our contributions to the wider Hong Kong society, various open competitions and a press meeting were organised in 2006. During the press briefing, our Director outlined various stages in the development of ArchSD and summarised its achievements over the past twenty years, including community design in the past, design and construction of various health care facilities for satisfying community need and the incorporation of sustainable design for public buildings and facilities.

September - December 2006      Open Essay Competition on Large-span Structures constructed by ArchSD



October - December 2006      "Architecture of Public Facilities" Photo Competition



First Prize Winner (Open Category)  
FUNG Wai Man



First Prize Winner (Secondary School Category)  
Kwok Tak Seng  
Catholic Secondary School (LUK Wai Ping)



First Prize Winner (Staff Category)  
CHUNG Ming-cheong

29 October 2006      Public Forum: 97 - Public Architecture in Hong Kong by ArchSD



21 December 2006      "Meet the Media" Press Briefing



## Striving for Cleaner Air

Climate change and regional air quality resulting from human activities are undeniable fact and became one of the public primary concerns in the past years. To proactively meet the challenge of air pollution controls in Hong Kong, ArchSD has developed various clean-air initiatives, both for indoors and outdoors. Similar to most of Hong Kong business organisations and government departments, ArchSD's operation is largely office based, and our greenhouse gas (GHG) inventory is primarily composed of indirect emissions of carbon dioxide (CO<sub>2</sub>) from electricity consumption.



Although we are not a significant emitter of GHG, we have strived to combat global warming through reduction in our energy consumption and improvement in energy efficiency in our own offices. In addition, we continue to take the lead in implementing energy efficient initiatives in building services installations and promote the use of renewable energy. In 2006, energy savings due to energy efficient installations were up to 39GWh in our completed projects, equivalent to 27,300 tonnes of CO<sub>2</sub> emissions.

Furthermore, we participated in two local initiatives in striving for cleaner air as described in the following sections.

### Clean Air Charter

The Chief Executive of the Government of the HKSAR signed the Clean Air Charter on 27 November 2006. As a signatory of the Charter, we are obligated to six commitments for cleaner air. They are:

Commitment One: Operate by a recognised world class standard, or the standards established by the Hong Kong / Guangdong governments on emissions of air pollutants, even if it is not a requirement to do so here.

Over the years, ArchSD has benchmarked the performance of our new projects against local recognised standards such as Hong Kong Building Environmental Assessment Method (HK-BEAM) and Hong Kong Energy Efficiency Registration Scheme for Buildings. The benchmarking exercises provide a driving force for us to continuously explore new opportunities to incorporate green elements in our projects. Our performance in achieving these two standards is exhibited in Use of Energy and Fuel.



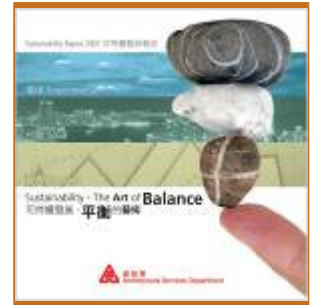
Commitment Two: Use continuous emissions monitors (CEMs) at significant sources, e.g. large and medium plants.

Indirect CO<sub>2</sub> emissions from electricity consumption and vehicle exhaust are our significant sources of emission into the atmosphere. To minimise the impact to the environment, energy saving objectives have been established and monitored every year. Electricity and fuel consumption data are collected and closely monitored by the Green Manager Committee. In 2006, we saved 4,314 tonnes of CO<sub>2</sub> equivalent emission from our internal operations.



Commitment Three: Publish information on energy and fuel use, as well as total emissions of air pollutants annually and timely, if emissions are significant.

Since 1999, we have disclosed our environmental performance data annually to the public through our Sustainability Reports, so as to increase the transparency and credibility of the Department's operations. Our electricity consumption and CO<sub>2</sub> equivalent fuel use form part of the environmental parameters and were publicised in our recent reports: see <http://www.archsd.gov.hk/>.



Commitment Four: Undertake to adopt energy-efficient measures in their operations.

Adhering to the HKSAR Government's guidance notes and circulars, we adopt energy efficient features and renewable energy technologies in government projects and installations. The energy conservation initiatives include the use of Overall Thermal Transfer Value (OTTV) designs, the use of water-cooled central air-conditioning to save energy, the use of CO<sub>2</sub> sensors to adjust fresh air intake, and energy saving fluorescent tubes installation, etc..



In 2006, two projects with a combined total of 124m<sup>2</sup> of 90kW Solar Hot Water panels were installed to maximise renewable energy utilisation. Details of our specific energy efficient measures can be found in the [Case Studies](#).

Commitment Five: Identify and encourage business-relevant measures to be taken on days when air pollution is high.

Our department has been taking various initiatives through our operational activities in office and project sites at all times to bestow our best efforts in seeking for a clear blue sky and a sustainable environment. We will explore further mitigation measures to minimise air emissions not only focusing on taking these enhanced initiatives on heavily air-polluted days, but also aim at integrating them into our daily works permanently.

Commitment Six: Share air quality expertise of business with others.

To disseminate our sustainable design initiatives such as energy efficient building services installation design and green roofing, we organised or participated in various environmental conferences, forums, seminars and workshops to share our expertise with our working partners and the general public. More information is discussed in [Awareness Promotion](#).



### Action Blue Sky

The [Action Blue Sky Campaign](#) initiated by the HKSAR Government to demonstrate our determination in reducing air pollution commenced on 25 July 2006.



### Dust Control

Dust is the most significant air pollutant generated during construction works. We have implemented on-going control measures at different stages of a project for tackling this problem. For example, construction methods are properly assessed to minimise dust production, suction equipment is used during pneumatic breaking works and dust trap-bag for drilling works. These measures aim at avoiding dust generation and the leaking of dust from construction sites to the surroundings.

### Products with VOC Content

We also tried to reduce our emission contribution of volatile organic compounds (VOC) into the atmosphere. We set out the maximum allowable VOC content in paints in our *General Specification for Buildings - 2003 Version*. To align with our forthcoming VOC Regulation in 2007, the limit for VOC content in paints will be tightened in the *General Specification for Buildings - 2007 Version*.

### Sustainable Timber

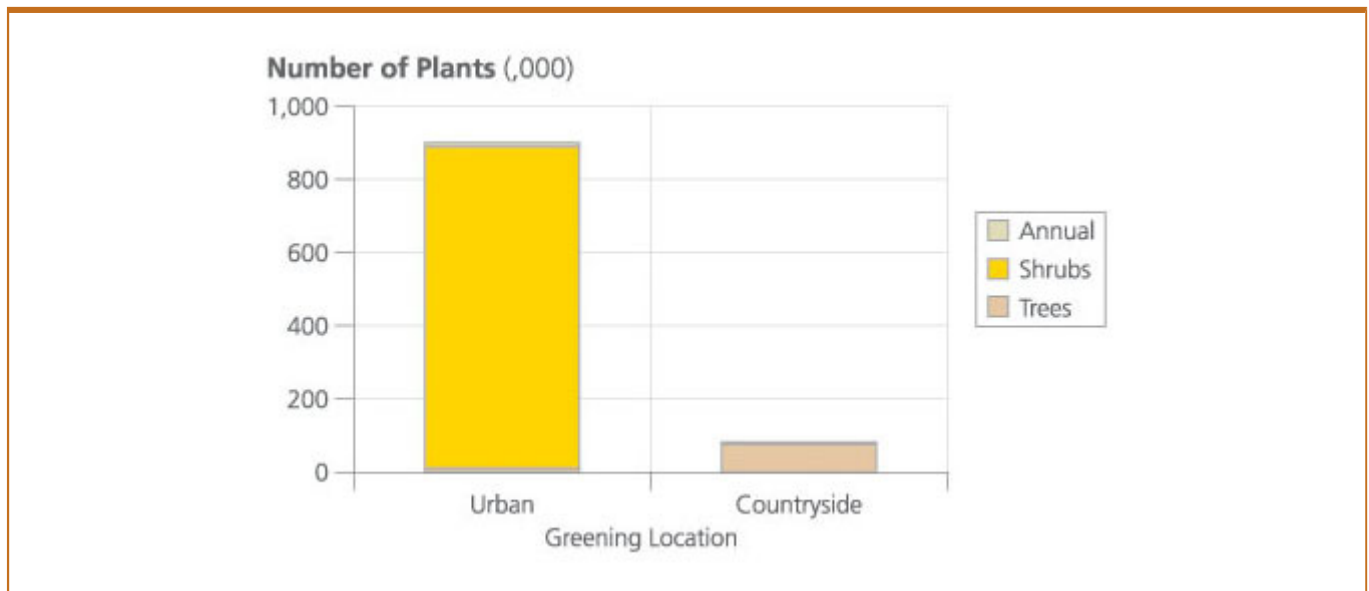
We introduced the requirement to purchase sustainable timber for carpentry and joinery works in our *General Specification for Buildings - 2003 Version*. We have further widened our scope for sources of sustainable timber from FSC Certificates, or other Approved Authorities, to include a list of updated authorities as Known Licence Source.

### Tree Preservation

To improve air quality and the general environment, we enhanced tree planting and preservation works through supporting the implementation of the Greening Master Plans and other greening programmes as indicated in the Chief Executive's Policy Agenda 2006-07.



### Greening Works by Capital Works Projects (FY 2006-2007)



For clean and fresh air in Hong Kong, ArchSD will continue to support the Government's initiatives to control air pollution. We will also continue to develop energy saving public buildings.

## Performance Summary

### Environmental Achievements

- **178** new works and **23** maintenance and improvement works were certified to Energy Efficient Buildings Register under the Energy Efficiency Registration Scheme for Buildings.
- **27,734 tonnes** of CO<sub>2</sub> equivalent were saved from being emitted into the atmosphere.
- **HK\$ 39 million** equivalent monetary value was saved due to energy efficient installations in our projects.
- **80%** of total A3/A4 paper purchased was recyclable.
- **7.1%** of annual expenditure was devoted to environmental works.

### Social Achievements

- **2,005 hours** voluntary work were carried out by our staff.
- **12** staff received commendations for voluntary service.
- **324** training courses were provided.

### Economic Achievements

- **1.6% savings** in the total Departmental expenditure compared to 2005-06.
- **63** new works projects were awarded to contractors totalling HK\$ 9 billion.

### Awards and Achievements

- Certificate presented by Hong Kong Institute of Architects for being one of the three architectural practices to achieve the most number of awards from 1965-2005 in the **Annual Awards of the Institute**.



- The Hong Kong Wetland Park Project won the **UK Landscape Institute National Award 2006**.

- The Hong Kong Wetland Park Phase II was awarded the "Commended" Certificate in the **Open Award for Technical Excellence in Architectural Technology 2006** organised by the Chartered Institute of Architectural Technologists.



- **The Hong Kong Institute of Architects Annual Awards 2006** was organised by Hong Kong Institute of Architects.



- Medal of the Year - Stanley Complex,



- Merit Award - Education Manpower Bureau Kowloon Tong Education Services Centre cum Public Transport Interchange,
- Merit Award - Sheng Kung Hui St. Andrews Primary School and Sheng Kung Hui St. Mary's Church Mok Hing Yiu College, and
- Merit Award - Beautification of Tsim Sha Tsui Promenade.

- **Quality Building Award 2006** jointly organised by the leading professional construction industry associations in Hong Kong.



- Certificates of Merit (Sustainable Buildings) - the New Headquarters of Electrical and Mechanical Services Department,
  - Certificates of Merit (Sustainable Buildings) - Police Headquarters - Arsenal House,
  - Certificates of Merit (Sustainable Buildings) - Hong Kong Heritage Discovery Centre,
  - Certificates of Merit (Sustainable Buildings) - New Territories South Police Headquarters,
  - Certificates of Finalist (Sustainable Building Innovation Sub Category) - the Penny's Bay Fire Station and Police Depot, and
  - Certificates of Finalist (Sustainable Building Innovation Sub Category) - New Territories South Police Headquarters.
  - **Green Building Award 2006** was organised by the Professional Green Building Council.
    - Grand Award of New Buildings Category - Hong Kong Wetland Park Phase II,
- 
- Grand Award of Newly Renovated Buildings Category - The New Headquarters of the Electrical and Mechanical Services Department,
- 
- Merit of New Buildings Category - Fire Station with Ambulance Depot and Design Police Post at Penny's Bay, Lantau,
  - Merit of New Buildings Category - Hong Kong Science Park Phase I, and
  - Merit in Environmentally Responsive Design - Improvement Scheme to Existing Public Toilets.
  - The **Most Inclusive Society Awards** organised by the Rehabilitation Alliance Hong Kong and sponsored by the Equal Opportunities Commission.
    - Public Non-Residential Category - Kwai Tsing Theatre
    - Open Space and Theme Park Category - Victoria Park, and
    - Rehabilitation Institute Category - Tung Wah Group of Hospitals Jockey Club Rehabilitation Complex.
  - Bronze Award for **Design Excellence in the Hong Kong Flower Show 2006** organised by the Leisure and Cultural Services Department, HKSAR.

### Selected Long Term Goals and Targets Review

Long Term Objectives	Targets for 2006	Achievement
Environmental		
Reduce water consumption	To install water-saving devices for 75% of sanitary appliances in new buildings	Achieved 78.46% of sanitary appliances
Reduce energy consumption	To achieve Overall Thermal Transfer Value (OTTV) standard of less than 23 W/m <sup>2</sup> for 100% of all new projects with air conditioning installations; and not more than 18W/m <sup>2</sup> for 65% of projects	Achieved 100% for all new projects achieved with OTTV less than 23W/m <sup>2</sup> ; and 85.7% for projects achieved with less than 18W/m <sup>2</sup>
Improve energy efficiency of building services installation	To use water-cooled heat rejection system in central air-conditioning system for at least 85% of new projects	Achieved 100% of new projects

## Architectural Services Department - Sustainability Report 2007 - Highlights

Improve visual and air quality of our city	To landscape usable roof area /or terrace for 90% of new projects	Achieved 100% of new projects
	To incorporate landscaping in buildings for 100% of new projects	Achieved 100% of new projects
Encourage practice of environmental protection measures and communicate our environmental policy to other Government departments / organisations	To record and monitor general technical advice on environmental protection measures	Achieved 1,877 environmental advices were given to various Government departments / organisations
<b>Social</b>		
Provide continuous training to staff on matters related to environmental issues	To organise staff participation in courses / seminars / visits related to environmental issues	Achieved 2 in-house seminars were organised and 29 external events were attended by staff More information can be found in <a href="#">Social Review - Our Staff</a> section
Minimising accident rate for ArchSD staff	Accident rate for ArchSD staff should be not more than 15 occupational injuries per 1,000 staff per year	Achieved 2.8 occupational injuries per 1,000 staff per year
Promote environmental awareness among consultants, contractors & the public	To promote the concept of environmental protection to the public through knowledge sharing in ArchSD website	Achieved <a href="#">Green Contractor Award 2005</a> <a href="#">Sustainability Report 2006</a> <a href="#">Safety &amp; Health and Site Environmental Information</a>
Minimising accident rate in ArchSD contracts	Accident rate in ArchSD contracts should be less than 0.75 reportable accident per 100,000 manhours worked	Achieved 0.53 reportable accident per 100,000 manhours worked
Strengthening health and safety knowledge for project staff with external training	At least 70% of site supervisory staff to attend safety course on "Basic Accident Prevention" and "Occupational Safety & Health Management"	Achieved 71% attended "Basic Accident Prevention", and 71.5% attended "Occupational Safety & Health Management"
Upkeeping safety and health awareness of professional, technical and site supervisory staff, consultants and contractors with in-house briefing	To organise at least four in-house workshops on safety and health	Achieved Five in-house workshops / seminars were organised with a total of 370 attendants
Improve the quality of our services and project delivery	To achieve 92% of the completed projects with at least Satisfactory Level or above on the overall performance in Client Satisfaction Survey	Achieved 100% of completed projects
<b>Economic</b>		

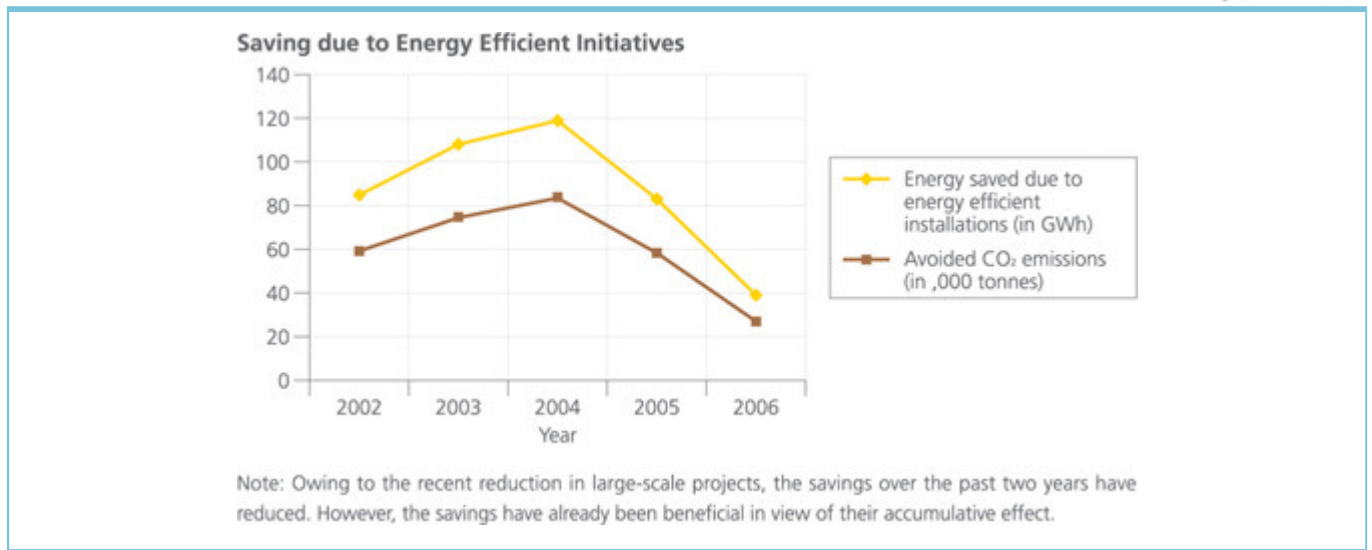
## Architectural Services Department - Sustainability Report 2007 - Highlights

Improve the quality of our services and project delivery	To ensure timely delivery of at least 80% of Capital Projects	Achieved 96% of projects met the target
	To monitor and ensure the expenditure on Public Works Programme projects not to exceed 5% under-spending and 10% over-spending of the budgeted amount	Achieved 0.07% over-spending
	To harness the resources in private sector through outsourcing of public projects	Achieved 85.9% value of capital works projects was outsourced

## Use of Energy and Fuel

To support the Government's initiative of reducing electricity consumption in Government premises by 1.5 % annually, we integrated energy saving technology and installations into the building design for public buildings and facilities, e.g. using water-cooled central air-conditioning, using CO<sub>2</sub> sensors to adjust fresh air intake, installing energy efficient lighting system and building integrated photovoltaic system. Owing to the recent reduction in large-scale projects, the savings over the past two years have reduced. However, the savings have already been beneficial in view of their accumulative effect.

### Saving due to Energy Efficient Initiatives

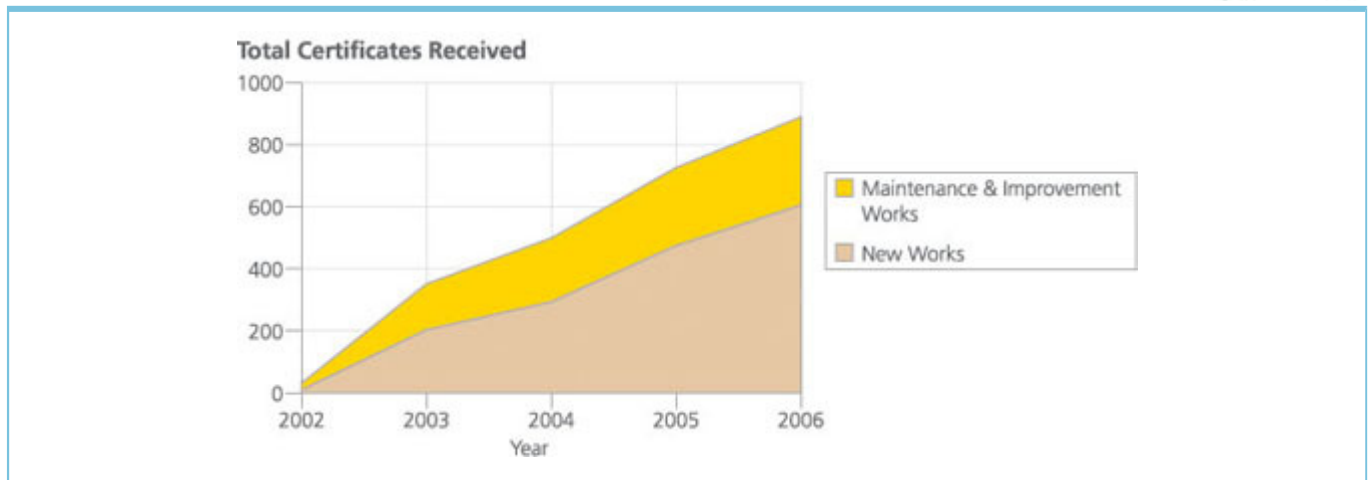


Note: The energy saved was estimated based on our professional evaluation on different energy saving installations. The CO<sub>2</sub> conversion factor used is 1MWh = 0.7 tonne and was deduced from the section of Energy Conservation in "[Environment Hong Kong 2007](#)" published by the Environmental Protection Department, HKSAR.

### Hong Kong Energy Efficiency Registration Scheme for Buildings: Energy Efficient Buildings Register

In 2006, 178 new works and 23 maintenance and improvement works were issued with certificates of Energy Efficient Buildings Register under the [Energy Efficiency Registration Scheme for Buildings](#) launched by the Electrical & Mechanical Services Department, HKSAR Government. Amongst the four Building Energy Codes (BEC) covering lighting, air conditioning, electrical and lift & escalator installations, performance of our project buildings satisfied one or more of these BEC standards. The following charts display the number of certificates received in previous years.

**Certificates Received under Energy Efficient Buildings Register of Hong Kong Energy Efficiency Registration Scheme for Buildings**



**HK-BEAM**

In 2006, one of the ArchSD project, New Territories South (NTS) Police Headquarters, received the highest rating - Platinum certificate at HK-BEAM in 2006. Our excellent environmental performance in planning, design, construction, commissioning, operation and management of NTS Police Headquarters was benchmarked and recognised.

In 2007, we plan to select a few projects to undertake an internationally recognised standard (e.g. Leadership in Energy and Environmental Design) to benchmark our projects for building sustainability.

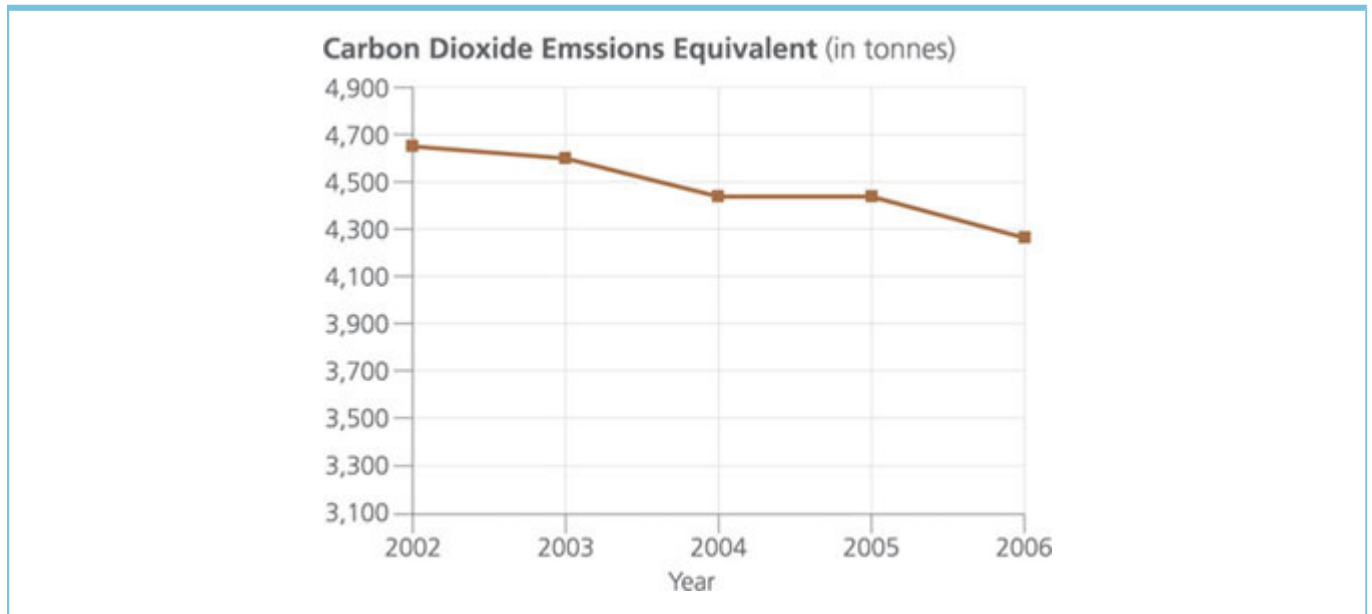
**Green Housekeeping**

Internally, in 2006, we have set up a team of 71 Energy Wardens in our offices to better manage the energy use on lighting, air-conditioning, electrical office equipment, desktop computers and associated equipment. *ArchSD General Circular No. 5/2006 - Measures for Green Housekeeping* has also been revised to include the duty of Energy Wardens and additional energy saving measures.

The steady and gradual decrease of electricity consumption in recent years demonstrates our successful implementation of energy saving measures. With support from staff in on-going fuel conservation initiatives, such as efficient use and regular maintenance of departmental vehicles, fuel saving increased significantly in 2006.



**Equivalent Carbon Dioxide Emission due to Electricity Consumption of ArchSD 's Internal Operations (QGO and APB Centre)**



Note: The energy saved was estimated based on our professional evaluation on different energy saving installations. The CO<sub>2</sub> conversion factor used is 1MWh = 0.7 tonne and was deduced from the section of Energy Conservation in "Environment Hong Kong 2007" published by the Environmental Protection Department, HKSAR.

In the coming year, one of our new energy saving initiatives is to require all new joint user buildings to adopt Building Energy Management (BEM) System, so as to calculate the energy charges for individual client departments. Moreover, we are proposing that energy efficient lighting like T5 fluorescent light for lift car illumination will be used for the passenger lift in not less than 60% of new projects in 2007. Occupancy sensors and photo sensors will also be installed in QGO headquarters and APB Centre to reduce energy consumption.

## Green Design and Planning

Environmental concerns are carefully considered at various stages during the design and planning for new public works projects. Initially, we advise our clients to identify the most appropriate site location where any disturbance to the environment, especially conservation areas with high ecological value, is minimised.

During the planning stage, we evaluate potential environmental impacts of the construction and operation stages in order to identify, prevent and mitigate any potential adverse influence on the environment. During the Technical Feasibility Stage, we normally carry out a Preliminary Environmental Review to identify the environmental considerations for the project and whether there exists a need for carrying out a comprehensive Environmental Impact Assessment (EIA) at later stage that would need Environmental Protection Department's agreement. An EIA is conducted for all projects classified as "designated projects" under the Environmental Impact Assessment Ordinance (EIAO). Detailed information is provided in the [EIAO Register](#).

EIA Reports were undertaken on the following projects:

- Reprovisioning of Diamond Hill Crematorium;
- Proposed Joint User Complex and Wholesale Fish Market at Area 44, Tuen Mun; and
- Replacement of Cremators at Fu Shan Crematorium.

Environmental impacts and safety concerns are also considered in relation to our Integrated Management System, Technical Circulars and guidance notes (e.g. [Construction Design and Management](#)) from the Development Bureau and other government departments. Four projects were selected to implement "Construction Design and Management" as stipulated in the Guidance Notes. Furthermore, we have used an Environmental Checklist for all new projects to ensure all the major environmental considerations have been taken into account during the initial design and planning stage.

## Sustainable Design Award

To recognise project teams that excel in achieving sustainability in design, the "Sustainable Design" Award Scheme was launched in 2001. The judging criteria concentrated on the degree of difficulty and innovation of the proposed initiatives, and whether sustainable principles were holistically applied to all aspects of design. All submissions are uploaded to the departmental intranet to facilitate the sharing of knowledge and to enable all professionals in ArchSD to participate in the voting process.

The winners of the 2006 Sustainable Design Award were:



### Grand Award

- [Stanley Complex](#)

### Grand Award

- [New Radiotherapy Centre and Accident & Emergency Centre at Princess Margaret Hospital](#)



### Certificate of Merit

- Dr. Sun Yat-sen Museum
- Joint-User Building at Rock Hill Street, Kennedy Town
- A 36-Classroom Primary School in Area 65, Tseung Kwan O

### Indoor Air Quality

Good indoor air quality (IAQ) is essential for the health and well being of the general public. This issue is not only taken into account when we design a building, but we had also developed a team of competent examiners to provide IAQ assessment services for our clients.

In 2006, a Quality Assurance Programme for the IAQ Certification Scheme (Scheme) was launched by the Environmental Protection Department and Hong Kong Accreditation Service. Effective from 2008, the issuance of IAQ certificates under the Scheme will be restricted to accredited IAQ Certifying Inspection Bodies (CIB). Our in-house CIB can provide assistance to our clients achieving the IAQ certification. The IAQ CIB will take the following steps:

- Carry out a walk-through inspection to check if the premises have any IAQ problem and to formulate a sampling plan;
- Recommend the project team to rectify the IAQ problems, if any;
- Conduct on-site IAQ measurements and recommend rectification action if any; and
- Certify the premises in compliance with IAQ objectives and issue a certification report that includes an IAQ certificate.

Some of our projects were certified in achieving Excellent and Good Classes respectively in 2006, as detailed below.

Public Building Projects	Certificates
Tai Kok Tsui Complex – Phase 2	1 no. <b>Excellent Class</b> and 3 nos. <b>Good Class</b> <sup>1</sup>
New Territories South Regional Police Headquarters and Operational Base	1 no. <b>Excellent Class</b> <sup>2</sup>
Science Park at Pak Shek Kok Phase IC – Building 6	1 no. <b>Good Class</b> <sup>3</sup>

Note:

<sup>1</sup> Certified for different locations in the premises

<sup>2</sup> Certified for office areas of premises

<sup>3</sup> Certified for office areas of premises

## Construction Waste Management

To alleviate landfill pressure, the control of construction and demolition waste material is one of the Development Bureau's (DEVB's) major concerns. Works Branch of the DEVB issued a Technical Circular in late 2005 which specified the requirements on the handling, storage and disposal of construction waste in conjunction with relevant Technical Circulars. We required contractors to follow the measures specified such as minimising the generation of construction waste, using recycled aggregates and providing an effective on-site sorting of construction waste. Details about the Circulars can be found in the DEVB's website at <http://www.devb-wb.gov.hk/>.

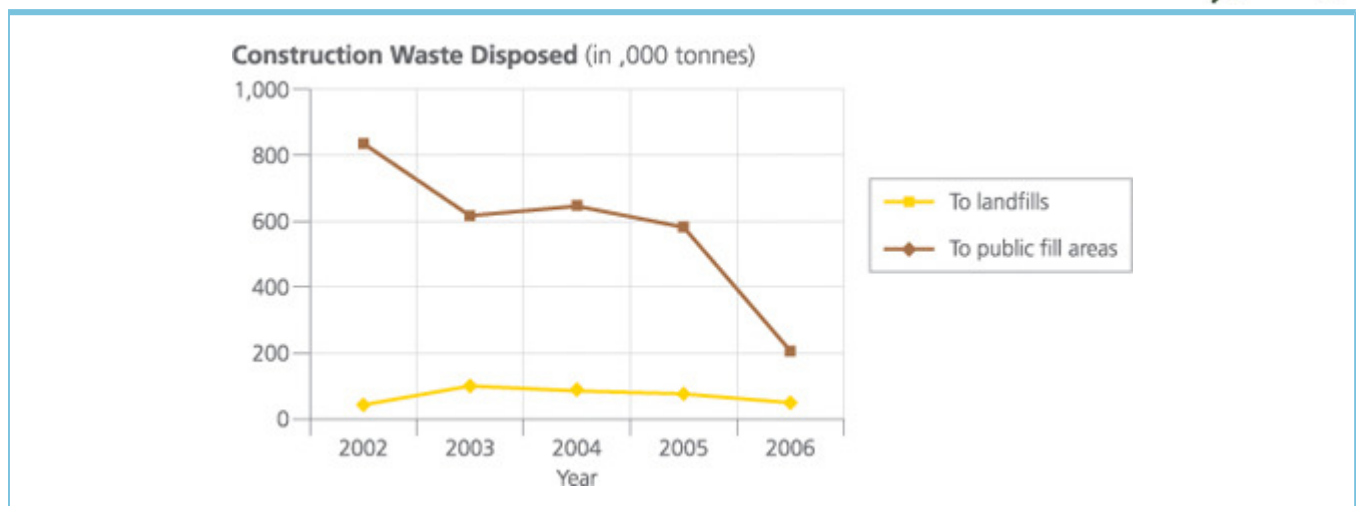


On-site waste sorting

An internal Task Force was established in early 2006 to develop a management system on handling construction waste generated from our projects. The Task Force also reviewed construction waste quantities and its disposal arrangement, and provided advisory services to other government departments.

In 2006, effective minimisation of construction waste and the decrease in the scale and number of projects led to a significant decrease in construction waste disposed of to landfills and to public fill areas.

### Construction Waste Disposed of to Landfills and to Public Fill Areas



## Green Practices on Site

### Greening Our Supply Chain

To ensure our projects are environmentally-friendly, we have made it mandatory to include environmental specifications in tender documents when outsourcing our design consultancies and construction works, in particular the Pay for Safety and Environment Scheme introduced by the Development Bureau.

For contract sums equal to or over \$20 million and contract periods over 6 months, the following environmental elements are incorporated into the project works planning and operation stages:



In 2006, we also drafted a Golden Reminders list for project inspection officers to highlight areas that require special concern during environmental site inspection. Some environmental control measures taken are:



Site environmental monitoring for noise



Cleaning area for frontline staff



Dust control measures on site

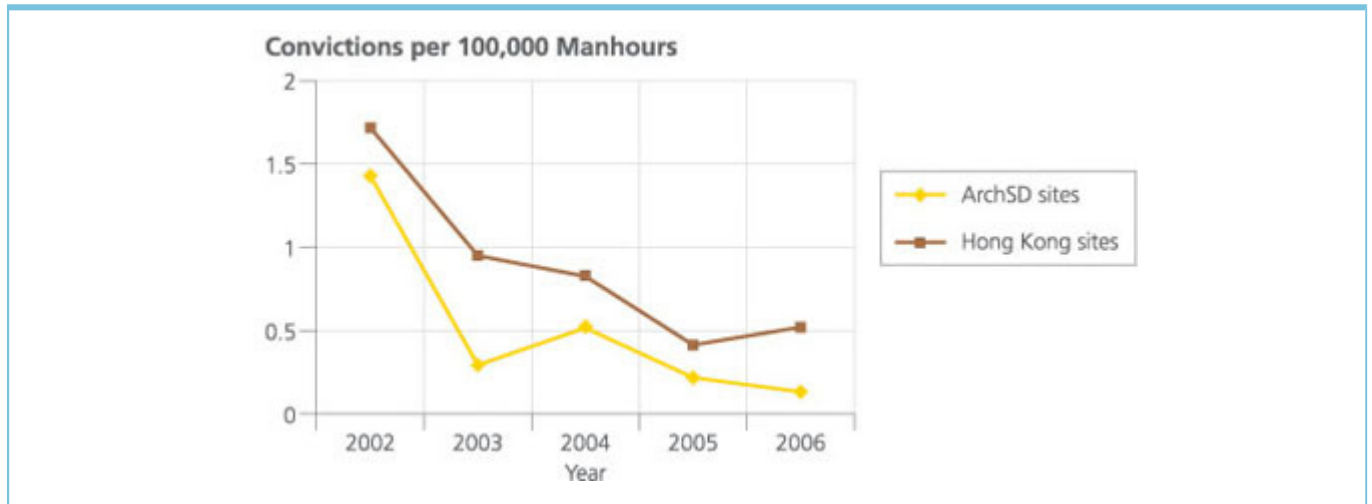


On-site waste separation facility

## Environmental Offences

The rate of environmental convictions by our contractors is consistently lower than the average in all Hong Kong sites. In 2006, environmental convictions decreased by 39% to 0.140 convictions per 100,000 manhours in comparison with year 2005. This indicates the success of our efforts in raising environmental standards of the supply chain through setting comprehensive requirements in the contract, constant close monitoring of their site practice and in issuing incentive awards.

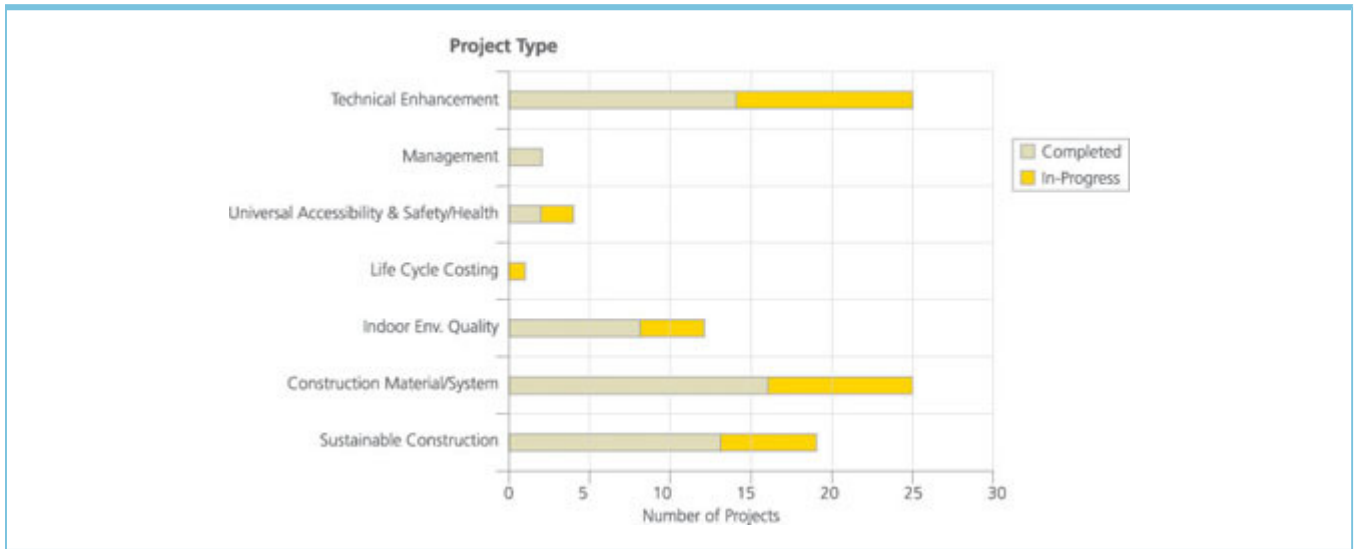
### Environmental Convictions of Contractors



## Research and Development

We have also strengthened our research efforts in areas such as climate change and expanding renewable energy usage. By the end of 2006, 55 nos. research and development (R&D) projects related to sustainability were completed, such as Indoor Environmental Quality and Life Cycle Costing studies.

### R&D Projects Completed or In Progress in Year 2006



## Promoting Environmental Awareness

We recognise our responsibilities in promoting environmental awareness to our stakeholders. Research study reports and papers regarding green building initiatives are easily accessible through our [website](#). Our staff also organised and participated in various publicity functions such as workshops, seminars and conferences to increase the environmental awareness of the general public.

### 2006 Events Highlights:

- Opening speech at the Building Education and Research Conference 2006 (BEAR 2006) by the Director of ArchSD in April 2006;
- Speech on "Wheeling the Pace of Sustainable Development" at the Hong Kong University School of Professional And Continuing Education (HKU SPACE) 50th Anniversary Professional Education Seminar by the Director of ArchSD in April 2006;
- A seminar on "Energy Saving Potential of Air-cooled Chillers by Variable Condensing Temperature Control" by our Building Services Branch;
- A seminar on "Mosquito Control on ArchSD Sites and Slopes 2006" jointly organised by the Departmental Safety and Environmental Advisory Unit (DSEAU) and our Property Services Branch; and
- Three presentations on environmental issues to Hong Kong Quality Assurance Agency (HKQAA) Symposium, delegates from Fujiang Provincial Construction Department and VIP from Malaysia.

### List of Selected Presentations in 2006

Presentation Topic	Presented in Conference/ Seminar/ Workshops
Proposed Declaration of King's College and Heritage Conservation in Hong Kong	King's College 80th Anniversary Public Lecture February 2006, Hong Kong
Conservation of Historical Buildings in Hong Kong	Hong Kong Polytechnic University March 2006, Hong Kong
Sustainable Design Features of the new Electrical and Mechanical Services Department (EMSD) Headquarters	Continuing Professional Development (CPD) Seminar - Sustainable Development in Design & Construction, City University of Hong Kong April 2006, Hong Kong
Hong Kong Wetland Park - a Multi-disciplinary Exercise in Sustainability	43rd International Federation of Landscape Architects World Congress and American Society of Landscape Architects 2006 Annual Meeting October 2006, USA
Universal Accessibility - the challenge we face in designing the external areas in Hong Kong	2nd International Conference for Universal Design, International Association for Universal Design October 2006, Kyoto, Japan
The Making of Oasis in the Urban Jungle	British Chamber of Commerce November 2006, Hong Kong
Adaptive Reuse of the Former Whitfield Barracks	Architects Talking Architecture November 2006, Hong Kong
Wetland Park - Beyond a Museum	Business of Design Week (Hong Kong Design Centre) November 2006, Hong Kong
Roof Greening	Symposium on Urban Climate & Urban Greenery (Professional Green Building Council) December 2006, Hong Kong



List of Selected Papers Completed in 2006

Paper Topic	Presented in Conference/ Seminar/ Workshops
Sustainability Considerations for Infrastructure Projects - Hong Kong Wetland Park Phase 2	The Hong Kong Institution of Engineers (HKIE) Environmental Division Annual Seminar 2006 April 2006, Hong Kong
Application of Semi-conductor Lighting - The Harbour Light and Sound Show Project	2006 China (Xiamen) International Forum for Semiconductor Lighting April 2006, Xiamen, China
Application of Ice Slurry in Air-conditioning System	HKIE & Chartered Institution of Building Services Engineers Hong Kong Branch (CIBSE HKB) Joint Workshop May 2006, Hong Kong
Pilot Application of Membrane Bioreactor (MBR) for Greywater Recycling in The New Electrical and Mechanical Services Department (EMSD) Headquarters Building	HKIE & CIBSE HKB Joint Workshop May 2006, Hong Kong
Study on Local Outdoor Design Condition, comfort and freshness for indoor design environment for Office Buildings	HKIE & CIBSE HKB Joint Workshop May 2006, Hong Kong
Advanced Image Recognition Techniques for Facility Management	HKIE & CIBSE HKB Joint Workshop May 2006, Hong Kong
Sustainable Building Design	Symposium of the "Science in the Public Service" Campaign April 2006, Hong Kong
Review on Water Treatment Method for Cooling Tower - case study for an air-conditioned building in Hong Kong	SiChuen-Hong Kong Joint Symposium 2006 June-July 2006, ChengDu, China
Sustainable Construction	Shanghai and Hong Kong Symposium on Science and Technology (The Hong Kong Institution of Engineers & Shanghai Association for Science & Technology) August 2006, Shanghai, China
Application of Photovoltaic System for HKSAR Buildings	2006 Conference on "Urban Infrastructure Development & Construction Market Regulation" November 2006, Urumqi, China
Encompassing Green Concepts beyond Greenery: Wetland Park and Beyond	Professional Green Building Council Symposium 2006 (Urban Climate + Urban Greenery) December 2006, Hong Kong
Post Occupancy Evaluation Experience in Disciplinary Premises	2nd Mega-Cities International Conference 06 at the Guangzhou University December 2006, Guangzhou, China
Assessing the Sustainability of Building Design on using Life Cycle Energy Analysis Software Tool (Joint Paper Energy Efficiency Office of EMSD & ArchSD)	2nd Mega-Cities International Conference 06 at the Guangzhou University December 2006, Guangzhou, China
Study on Green Roof Application in Hong Kong	Steering Committee on Greening, Environment, Transport and Works Bureau (now under Development Bureau)
Environmental Friendly Design for Government Buildings	4th Annual Seminar on Hong Kong as a Super Sustainable City with the Latest Update on International Environmental Technologies November 2006, Hong Kong

A total of 28 environmental related trainings events were held for staff. These included both in-house and external events such as conferences, lectures, seminars and site visits. Topics covered sustainable building design, indoor air quality, waste management, energy efficiency, BIPV, etc.

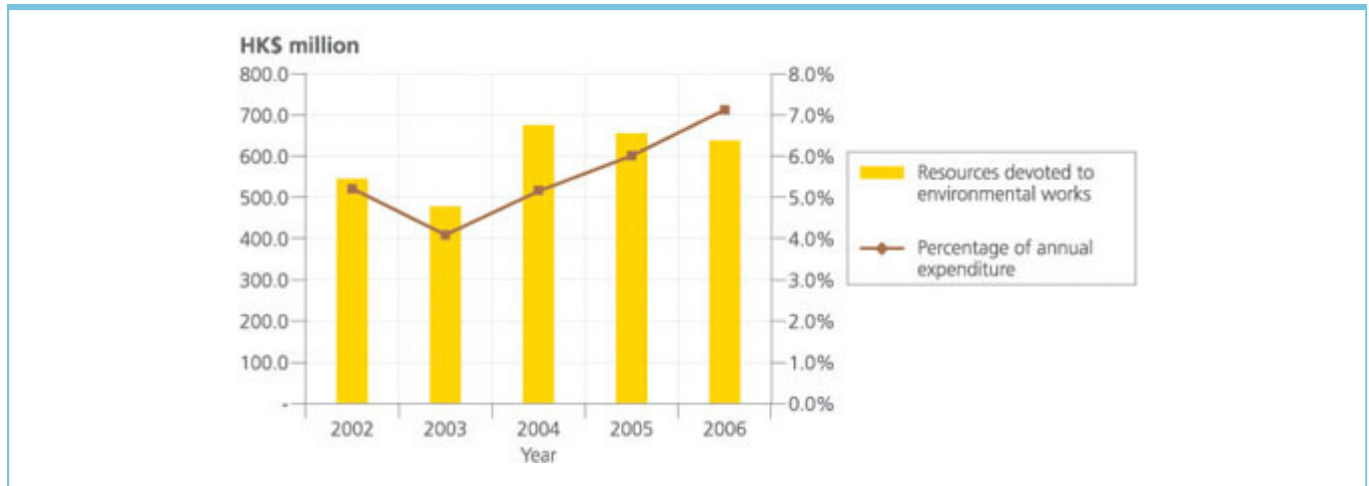
**Resources for Environmental Protection**

In supporting the implementation of environmental works, we ensure that sufficient resources are devoted to environmental protection. Environmental costs in our works are categorised into the following four environmental concerns:

- Air and water pollution control, noise mitigation measures, waste water treatment and disposal, and asbestos abatement works;
- Environmental review and impact assessment for projects;
- Resources spent for environment-related works; and
- Maintaining environmental management system and housekeeping activities.

As shown in the graph below, we continually invest a considerable portion of our expenditure in developing environmentally sound buildings and facilities.

**Resources Devoted to Environmental Works**



**Resources devoted to environmental works (2006)**

Activities	Value (\$ million)
Air and water pollution control, noise mitigation measures, waste water treatment and disposal, and asbestos abatement works	525.67
Environmental review and impact assessment for projects	4.25
Resources spent for environmental related works	105.01
Maintaining an Environmental Management System in accordance with ISO14001 and housekeeping activities	4.52
<b>TOTAL</b>	<b>639.45</b>

Our responsibility is not limited to develop a green, healthy living environment for our clients and the public. Ethical supply chain management and social activities relevant to our operations are also listed in our agenda. These factors are important to help us become a more responsible corporate citizen.

As a Government Department, we operate under the umbrella of HKSAR Government and Central Government policy framework, specifically on labour and human rights issues. Internally, the Civil Service Bureau is the responsible Government agency for developing and implementing policies on the management of the civil service. Detail information is available at the Civil Services Bureau' s website at [www.csb.gov.hk](http://www.csb.gov.hk).

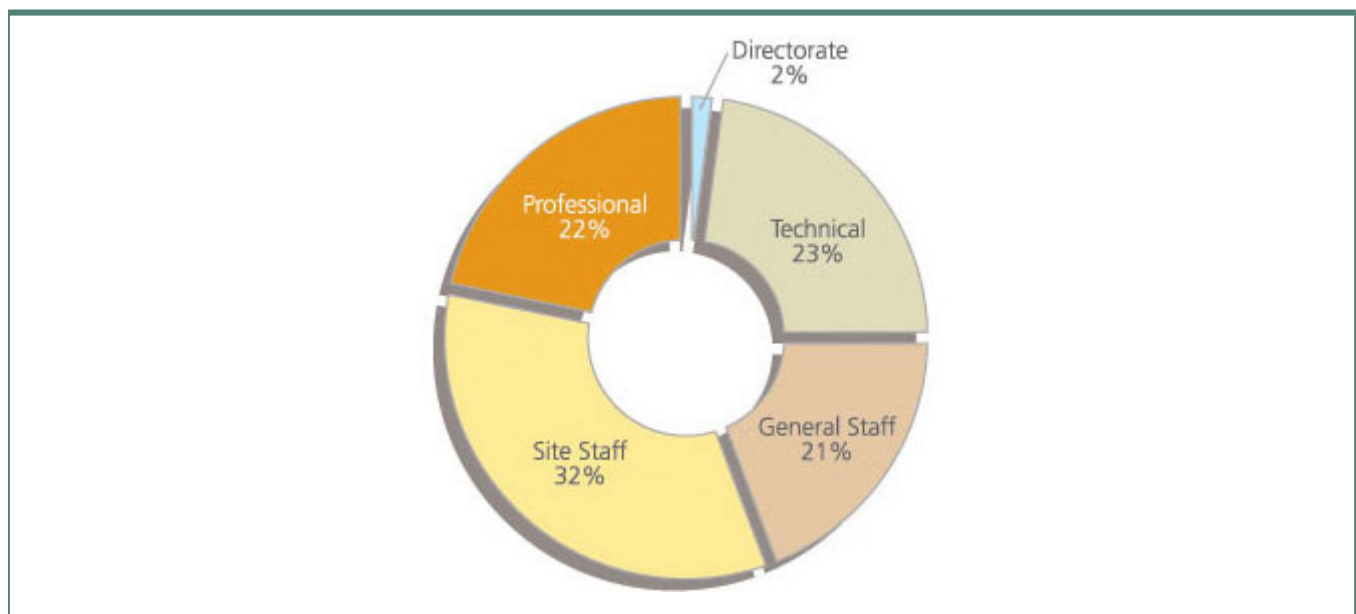
### **Our People**

We are proud to have a team of energetic and dedicated staff who are committed to contribute to the sustainable development of Hong Kong.

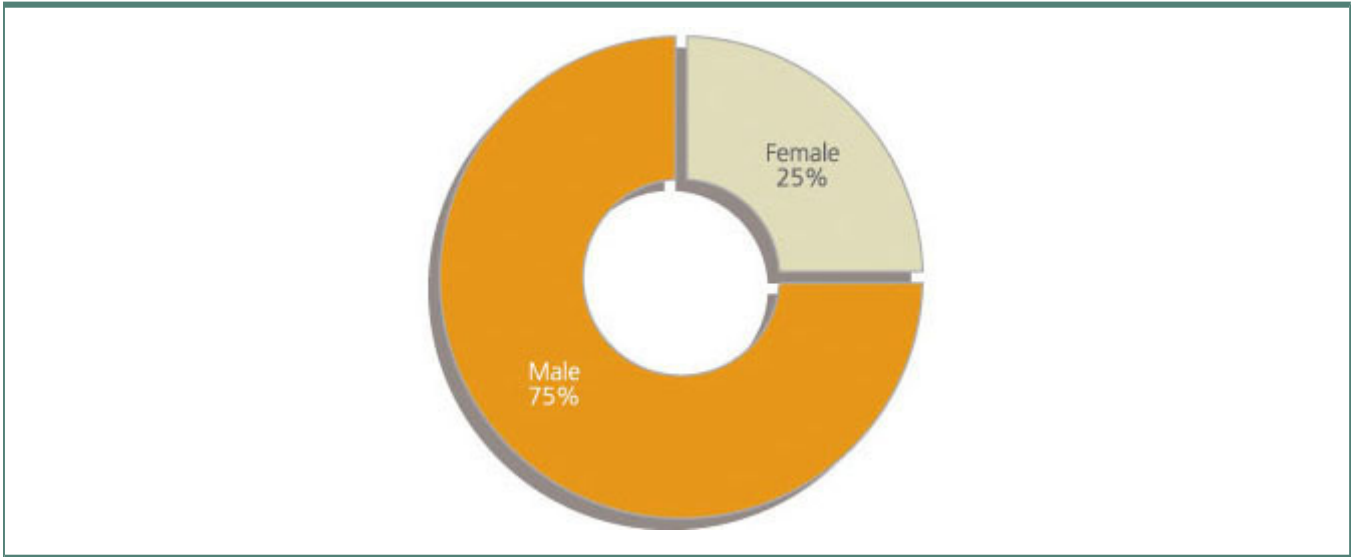
### **Employment Profile**

As at 31 March 2007, there were 1,766 civil servants in our department.

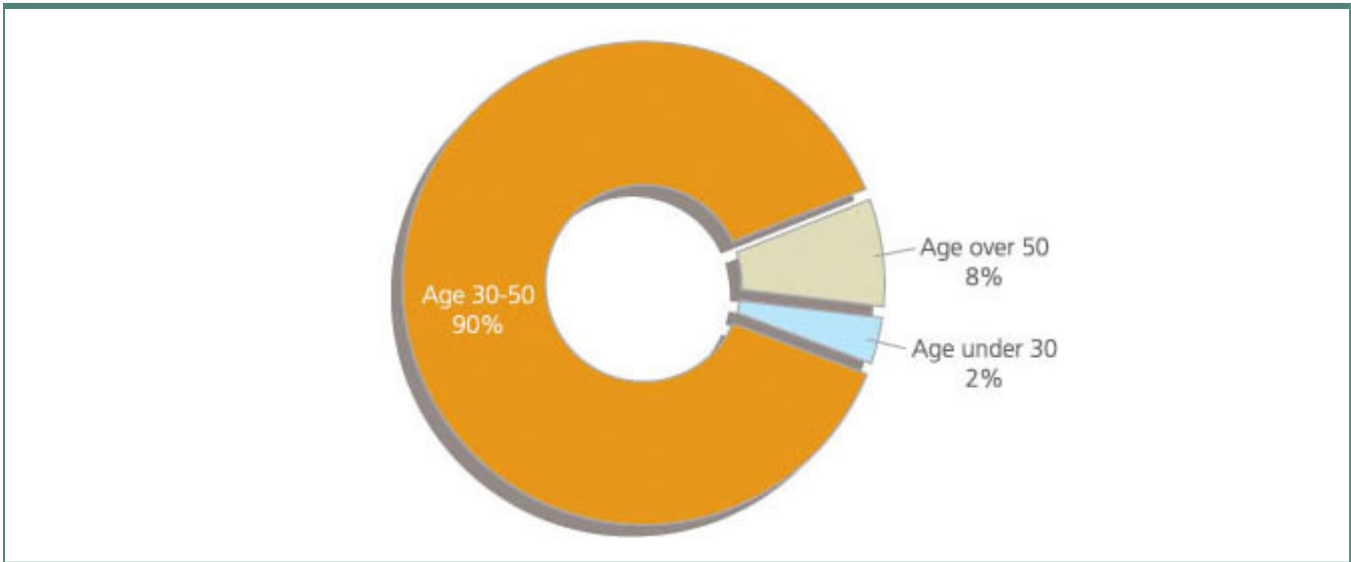
#### **Staff Establishment by Post in 2006 (as of 31.3.2007)**



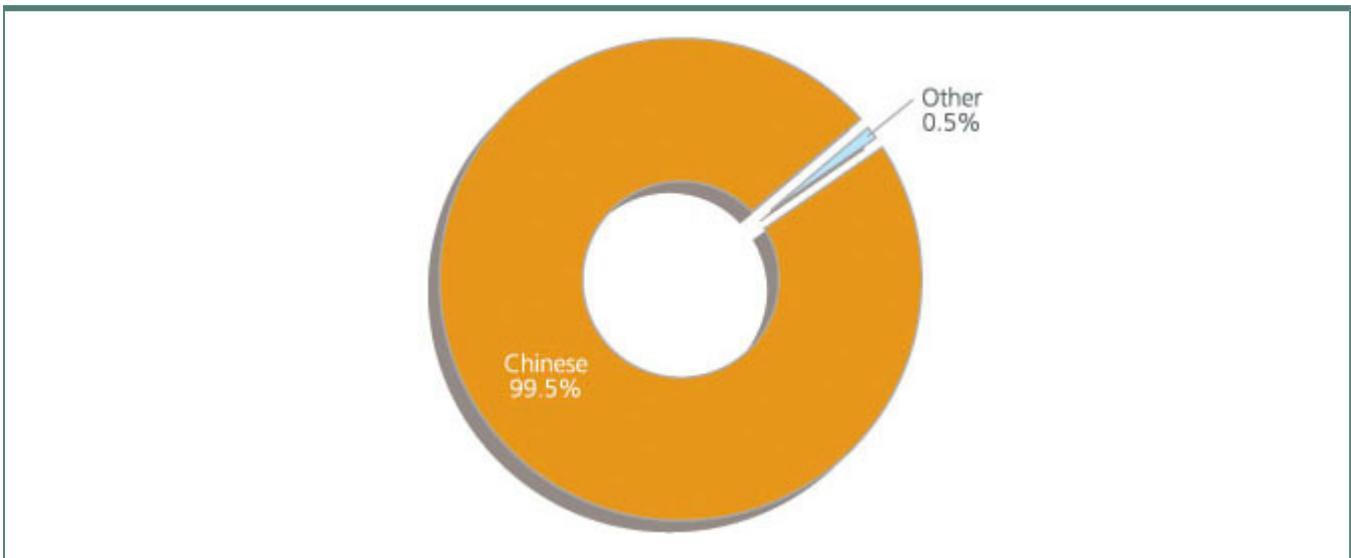
**Break-down of Staff by Gender (as of 31.12.2006)**



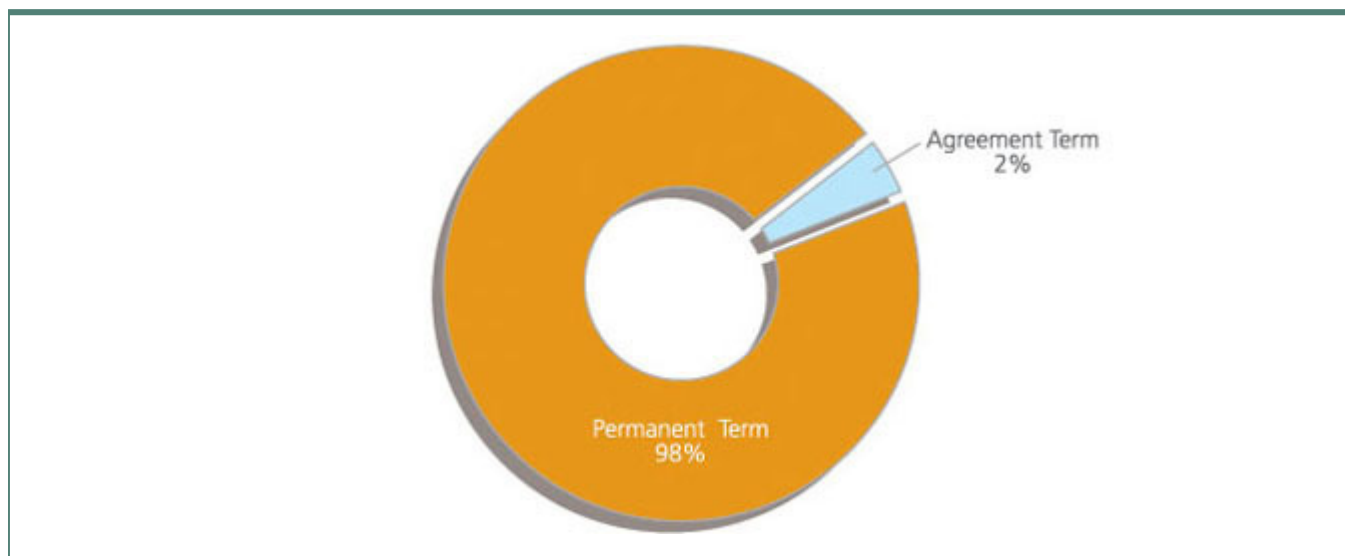
**Break-down of Staff by Age Group (as of 31.12.2006)**



**Break-down of Staff by Ethnicity (as of 31.12.2006)**



**Break-down of Staff by Type of Employment Contract (as of 31.12.2006)**



In 2006, 1.8% of all staff left employment, whereas the male to female ratio of this group was 9:1, and 4 out of 5 staff in this group were aged over 50.

**Anti-Corruption**

We are obligated to comply with stringent anti-corruption policies and procedures developed internally and externally by the Civil Service Bureau (CSB) and Development Bureau (DEVB). Our internal guidelines set out requirements to avoid conflict of interest, acceptance of advantages and entertainment. Our integrity performance is also closely monitored and analysed by the Independent Commission Against Corruption (ICAC). Any instance of bribery to a Government official should be reported to the ICAC.

All new employees are provided with the Development Bureau's Integrity Management Manual and various internal circulars. In 2006, a series of on-going training workshops on integrity management were begun in order to strengthen the implementation of relevant policies and procedures.

**Human Rights**

We are endeavouring to ensure fair treatment between both genders in terms of salary, promotion and compensation. Also, we fully comply with the Employment Ordinance and prohibit child labour and forced labour. Following local legislation, we do not hire youths of aged 15 years or younger, nor students aged 18 or younger.

It is Government policy to integrate the disabled into the community through vocational rehabilitation and employment in both public and private sectors. Appropriate preference for job appointment should be given to disabled persons if they are found suitable for employment. Upon employment of the disabled, we comply with the Disability Discrimination Ordinance and the Code of Practice on Employment issued by the Equal Opportunities Commission.

In 2006, we had no significant incidents related to discrimination, activities against freedom, child labour, forced labour or corruption.

**Staff Relations**

Our human resource management includes good staff relationship, close communication and co-operation between staff and suitable healthcare and welfare system.

### Internal Communication

Engaging our staff and having two-way interactive communication is a cornerstone for a positive and inclusive working atmosphere.

To enhance internal transparency and communication, we publicise an internal newsletter "ArchSD Express" to all staff to update colleagues on departmental changes, government policies, voluntary activities and recreational activities

During the Joint Staff Consultation Group Meetings, staff representatives were consulted on any organisational changes such as the Re-engineering Programme of the Department. Staff can express their opinions and concerns through the ArchSD Forum in our intranet. Moreover, the Departmental Consultative Committee (DCC) provides a direct communication channel between the management side and staff. The matters discussed include a variety of topics such as promotions, recruitment, accommodation, and many other matters of concern to staff members. Our Director also regularly pays informal visits to different divisions to maintain close contact with staff and to freely exchange views with them.



The Director's informal visit to a division



Integrated Management Committee meeting

Apart from the formal consultative forums at central and departmental levels, 23% of our staff are members of ArchSD Staff Association. Every year, both the ArchSD Staff Association and the ArchSD Property Services Branch Staff Club organise a number of recreational and volunteering activities for our colleagues to enrich our internal communication and unity, and to maintain our work life balance. In 2006, activities such as a soccer tournament, Ngong-Ping 360 tour and hiking trips were arranged. We also entered men and women Dragon Boat Teams to participate in the 'Summer Vigor' races.



Dragon Boat Men's Team



Ngong Ping 360 tour

### Employee Pay Structure and Benefits

As civil servants in Hong Kong, we are compensated on the pay scales with regard to our respective grade and rank. We normally advance one increment a year within our rank scales if our performance is satisfactory. This includes conduct, diligence and efficiency.

Various health care and welfare benefits are provided to our permanent staff including medical and dental services, education support for children, housing, and retirement pension.

### Employee Training

We endeavour to provide high quality service, and this relies heavily on our strong and competent team. In view of this, we take a long term view of nurturing talent and continuously improving our staff's professional knowledge and enriching their personal development. We arranged for 2,548 staff members to participate in 324 various trainings events organised both internally and externally. The events are mainly categorised into Leadership and Management, and Professional and Vocational Skill trainings.

	No. of attendees	No. of training hours
Leadership and Management	10	1,282
Professional and Vocational Skill	2,538	19,942

#### 2006 Training Highlights:

Leadership and Management -	<ul style="list-style-type: none"> <li>● Media Skills Courses</li> <li>● Press Release Writing Skills Courses</li> <li>● Integrity Management Training Workshops</li> </ul>
Professional and Vocational Training -	<ul style="list-style-type: none"> <li>● Two-day Short Course on Air Pollution Control</li> <li>● Civil Engineering and Development Department &amp; Environmental Protection Department Construction Waste Disposal Charging Scheme Seminar on "Acceptance Criteria"</li> <li>● Small Scale Building Integrated Photovoltaic Application (BIPV) Workshops</li> <li>● Occupational Safety &amp; Health Management Course</li> <li>● Basic Accident Prevention Course</li> <li>● Safety and Environmental Workshop</li> </ul>

### Occupational Health and Safety

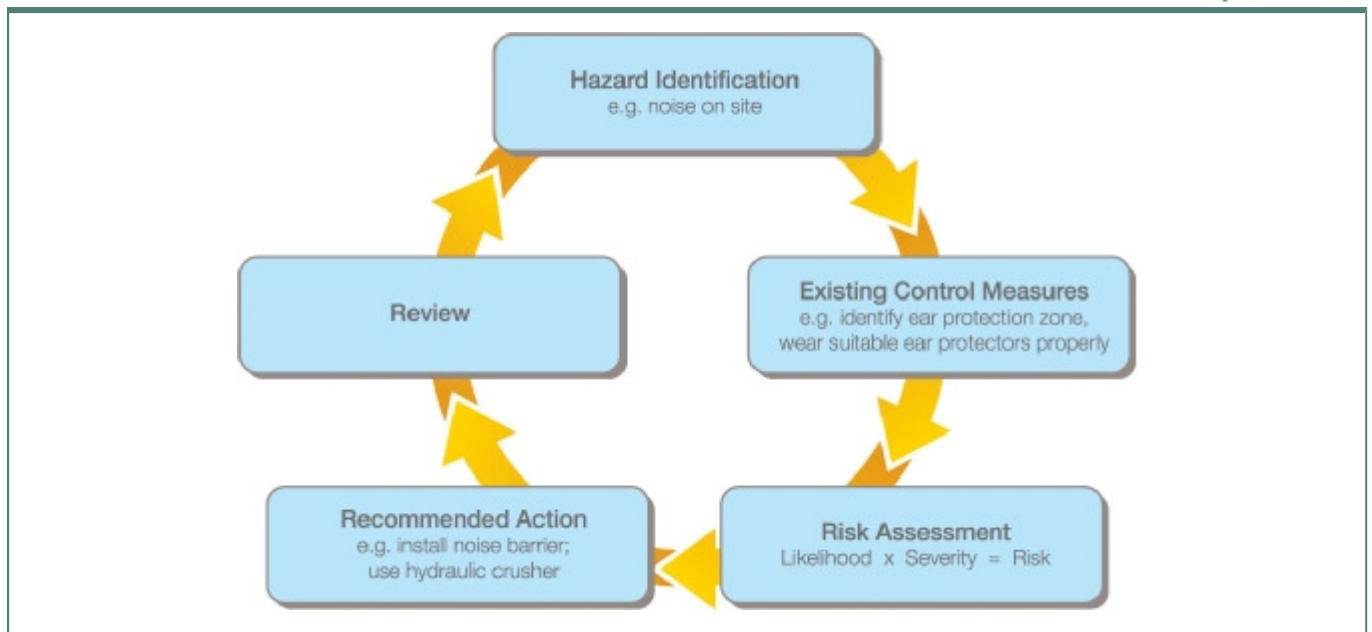
Ensuring that our staff are working in a safe and healthy environment is one of our top priorities. We have taken various initiatives covering management control and training to achieve this target.

#### Occupational Health and Safety Management

In 2006, we moved a further step at developing and implementing the Health and Safety Management System which is in accordance with the requirements of an internationally recognised standard, OHSAS 18001 (Occupational Health and Safety Assessment Series). Occupational Health & Safety Representatives (OHSR) Working Group was established, and Integrated Management Committee (IMC) and Integrated Management Working Group (IMWG) were re-structured to include OHS representatives and related agenda. In parallel, awareness training and internal auditor training had been arranged for staff to enhance their understanding of the OHSAS 18001 requirements and competence in performing internal audit for monitoring the effective implementation of the management system. Streamlined documentation with incorporation of OHSAS 18001 was put into operation in April 2006.

Risk assessment had also been conducted and significant risks were identified by means of a standard risk assessment matrix. Corresponding safety measures communication network and an emergency plan were developed and put in place. To facilitate staff in making reference with all the manuals, all relevant information was available on our departmental intranet.

**Risk Assessment Process**



In 2006, risk assessment for all workstations of users of display screen equipment (DSE) was conducted in order to evaluate the risk level of those staff who use DSE at work for prolonged periods of time. The staff workstation including display screen, input devices, work desk, chair, etc were examined. Follow-up actions such as provision of document holders were taken based on the recommendations of the assessment.

After implementation of OHSAS 18001, we conducted an integrated internal audit in June/July 2006 during which only minor observations were raised regarding the management system and site activities. We were prepared for the first assessment of the OHSAS 18001 to be arranged in September 2007 to integrate with the Surveillance Visit for ISO 9001 and 14001. The certification is expected to be achieved in November 2007. Updates on the OHSAS 18001 implementation and certification will be stated in next year's report.

**Departmental Contingency Plan for Influenza Pandemic**

Following the call from Secretary for Food and Health, ArchSD formulated a departmental contingency plan to prepare for influenza pandemic (IP). The aim was to maintain a state of preparedness for rapid mobilisation of available resources and effective co-ordination of appropriate actions to protect the occupational health of staff, and at the same time minimise the disruption of the provision of services for the community. An Ad hoc Working Group on Influenza Pandemic has been established to oversee the preparedness for IP and implementation of effective measures within the departmental workplaces.

**Indoor Air Quality**

As a responsible employer, maintaining good air quality and providing a good indoor environment are part of our responsibility. The indoor air quality of the ArchSD offices in QGO and in APB was benchmarked with the IAQ Certification Scheme organised by the Environmental Protection Department, and these two places were certified as achieving "Good Class" objectives in October 2006.



## **Our Clients**

Our clients are important partners who need to be engaged as we promote sustainability in Hong Kong. During 2006, we have proactively worked with a range of government departments including Independent Commission Against Corruption (ICAC), Electrical and Mechanical Services Department (EMSD), Hong Kong Police Force (HKPF), Hospital Authority (HA), and Leisure and Cultural Services Department (LCSD) through various works projects. We believe that fostering close connection and stakeholder dialogue are essential ingredients in partnering together to achieve significant improvements in sustainability.

### **Repair Call Centre**

Whilst we proactively seek client's feedback related to customer satisfaction level, we are also aware of our responsive duties in addressing clients' requests for minor repair. To ensure repair works are arranged in a responsive, professional, and timely manner, a centralised Repair Call Centre was set up to cater for end-users of government properties. We have processed over 300,000 cases in a reliable and efficient manner. The performance of the repair works contractors are randomly checked through our clients / callers by our Repair Call Centre operators. If the contractors failed to keep the appointment as confirmed, the Repair Call Center operators will follow up with the contractors and clients immediately and initiate a non-compliance record against the contractor.



We also introduced an advanced computer program that allowed skilled technicians to focus on the problem, and provided valuable information to end-users during the call, such as call-queue status and nature of repair functions.

To increase stakeholder engagement and improve organisational performance, further developments are underway, such as:

- A new Repair Web channel that streamlines the communication process between clients and operators. The provision of online access will ensure accurate and automatic records, encourage rapid response and allow 24 hour access.
- A new Message Broadcasting System that encourages instant notification of updated maintenance status from technicians and operators to the client in an interactive, timely and responsive manner.

### **Client Satisfaction Survey**

The continuous monitoring of client satisfaction and subsequent custom-made coping strategies are logical ways to ensure the optimum usage of our services and identified ways to consistently improve performance. Through quarterly Client Satisfaction Surveys (CSS), we have closely assessed client feedback in an efficient and reliable manner. Topical issues on sustainability covered in the survey include sustainable, conscientious use of buildings materials and recycled resources, energy conservation as well as the greening of internal and external environment.

Witnessing a slight decline of overall customer satisfaction, down to 77.04 (2006) from 77.71 (2005) previously, it is believed we have approached a turning point whereby an outsider' s perspective was crucial and independent advice would be worthy for consideration. Hence during 2006, we collaborated with an independent consultant who advised on altering the focus of our Client Satisfaction Survey.

A systematic approach was suggested to improve our survey and to combine data collection, and these indicate our commitment to continuous improvement. The objective of the approach is a streamlined process, focused on each client' s individual needs. The proposed method would concentrate on a few selective areas:

- Tailor-made questionnaires are proposed rather than a macro "one-size-fits-all" exercise whereby the removal of technical aspects is emphasised and there are more customer satisfaction questions.

- Introduction of a follow-up review mechanism whereby individual client's critical responses could be obtained more accurately and reliably.
- To engage clients more closely through experience sharing sessions and raise the level of ownership in an attempt to foster the overall importance of Client Satisfaction Surveys.

The enhancement of the Client Satisfaction Surveys will bring about more frequent interactions and relationship building with the client through regular face-to-face and telephone interviews. Client satisfaction can also be tracked at various critical project phases to represent fairly the overall client satisfaction of ArchSD. The enhancement exercise plans to be implemented in 2007 based on the findings and recommendations of the consultancy study.

## Contractors and Suppliers

Ensuring open, fair, consistent and non-discriminatory treatment to products, services, consultants and contractors from different countries, we have no priority or preference on contractors and suppliers from the local community or from abroad, with regard to public policies.

### Considerate Contractors Site Award

Every year, DEVB organises the Considerate Contractors Site Award Scheme to acknowledge contractors for their considerate attitude towards the public and their neighbours in carrying out works, outstanding site safety and environmental performance, and good site management. In appreciation of contractors' best site practices and as a driving force to continuously improve their performance, we encourage our contractors to participate this Award Scheme.

In 2006, three ArchSD contractors won the Considerate Contractors Site Awards with one also won the Outstanding Environmental Management & Performance Grand Awards.

- Redevelopment of Staff Quarters for the Establishment of a Rehabilitation Block at Tuen Mun Hospital - Shui On Construction Company Limited
  - Considerate Contractors Site Awards - Bronze
  - Outstanding Environmental Management & Performance Grand Awards - Bronze
- Improvement Works to Waterfront at Stanley, Hong Kong - Maeda Corporation
  - Considerate Contractors Site Awards - Merit
- Design & Construction of Hin Tin Public Swimming Pool, Phase 2, Shatin - China State Construction Engineering (Hong Kong) Limited
  - Considerate Contractors Site Awards - Merit



In addition, we encouraged construction workers to participate in the ArchSD Site Safety Model Worker Award Scheme to promote their awareness on safety and health. In 2006, 26% of our contracts participated in the Scheme.

### Green Contractor Award

Organising the 6<sup>th</sup> ArchSD's Green Contractor Award Scheme, we aimed at providing incentives for our contractors to keep track on their environmental aspects, and continuously improve their environmental performance on construction sites.

- Gold Award
  - Design and Construction of Residential Complex for Juveniles in Tuen Mun - Leighton Contractors (Asia) Limited
- Silver Award
  - Improvement Works to Waterfront at Stanley, Hong Kong - Maeda Corporation
- Bronze Award
  - Improvement of Facilities in the Special Outpatient Block of Pamela Youde Nethersole Eastern Hospital - Goldfield N&W Construction Company Limited

## Public Engagement

We serve our community by providing user friendly, environmental friendly and sustainable buildings and open areas. To continuously improve our services, we strive to engage with the public, conduct research and collect opinions.

## Universal Accessibility

Developing public buildings and open spaces for the community that facilitate the widest possible spectrum of users is one of our key responsibilities. As a continuation of our research on Universal Accessibility (UA), the research report "Universal Accessibility for External Areas, Open Spaces and Green Spaces" which follows the publication of the research report "Universal Accessibility - Best Practices and Guidelines" in 2004, is nearing completion in 2007.

In line with the first report, the ensuing research study continues to explore the holistic and innovative design approaches to improve accessibility in the built environment of Hong Kong. In particular, it aims at recommending best practices and design guidelines for the widest spectrum of users to access external areas, open spaces and green spaces.

The research will attempt to focus on topics such as access planning, external connections, landscaped spaces, outdoor furniture and fittings, visual contrast, lighting, safety and maintenance. A photo gallery consisting of good local and overseas examples will be incorporated in the report to illustrate best practices for reference. In the report, some existing provisions, lessons learnt and key issues of forward planning for an accessible environment will also be examined and illustrated through case studies.



Wheelchair down the ramp into the maze

We will promote best practices and guidelines on Universal Accessibility in external areas, open spaces and green spaces through conferences. Moreover, a set of guidelines for "Universal Accessibility Design Submission (UADS)" will be drafted in 2007 to promote Universal Accessibility design in future projects.



Convenient accesses

In transmitting our research on Universal Accessibility into our building designs, we take into account the needs of different users at the design stage. Our commitment to embracing this consideration was praised in the Most Inclusive Society Awards organised by the Rehabilitation Alliance Hong Kong and sponsored by the Equal Opportunities Commission. Kwai Tsing Theatre won the Award in the Public Non-Residential category, the Victoria Park in the Open Space and Theme Park category, and the Tung Wah Group of Hospitals Jockey Club Rehabilitation Complex in the Rehabilitation Institute category.



Kwai Tsing Theatre



Victoria Park



Tung Wah Group of Hospitals Jockey Club Rehabilitation Complex

## Mosquito Control

In 2006, we stepped up our site supervision and intensified independent mosquito checks on site and mosquito control on slopes in order to eliminate any mosquito breeding ground.

During the critical wet season, we adopted the practice of 'one independent audit check for new works site', and also took similar measures at our maintenance works sites. Furthermore, seven new works sites voluntarily installed mosquito trap devices to monitor the level of mosquito activity.

Increased awareness among our staff and contractors is also a key to execute appropriate mosquito control measures on site. We participated in an inter-departmental task force and the Food and Environmental Hygiene Department's Anti-mosquito Campaigns, conducted in-house trainings, and enhanced our *Operational Instruction No. 10/2004 - 'Mosquito Control Management'*.



Applying larvicide to a mosquito black spot on a slope

## Public Consultation

As a public agent that focuses on design and building, our role is not limited to create sustainable public buildings; we also enhance the awareness of the public of public architecture. In October 2006, we organised a Public Forum entitled "Public Architecture in Hong Kong" to provide a platform for architects, educators, students and other stakeholders to share their views on the present and future development of public architecture in Hong Kong.



Public Forum

The General Specification of Buildings was revised in 2006 and will be re-published in 2007. The revision was primarily focused on improving our standards of specifications relating the sustainability, quality and the environment as a whole. The new *General Specification for Buildings - 2007 Version* will include a 3-month consultation period before coming into force. Comments from major industry players including Hong Kong Construction Association and Hong Kong Institute of Architects will be sought.

We also compiled information on a quarterly basis for preparing and publishing the Tender Price Index for building works and building services works in order to adjust building cost data for estimating purposes. Both publications are shared with the public through our departmental website.

## Community Service

### Community Work

Our Voluntary Service Team has been established for several years. In 2006, we had 35 active members taking part in a number of community works. The total voluntary work hours carried out by our staff was 2,005.



Our staff spent their spare evenings tying knots as presents for the elderly



We repaired the home of some elderly



60 colleagues served as volunteers in helping disabled students from Margaret Trench Red Cross School to visit the new Electrical and Mechanical Services Department Headquarter



We raised donations of more than \$60,000 for TrailWalker 2006, with two teams participated in the event

Our staff has also participated in other charitable activities such as Community Chest Green Day 2006 and Community Chest Skip Lunch Day.

### Community Work Award

Our commitment to community activities was acknowledged by the public. In 2006, 12 staff received commendations for volunteer services and our department also received appreciation from several organisations.



In March 2006, we received a Commendation from the Volunteer Movement under the auspices of Social Welfare Department for having participated in the Lucky Knots campaign.



In May, we received Gold Award for Volunteer Service presented by the Volunteer Movement for serving more than 1,000 manhours.



In July, we received a Bronze Award for the donations of \$63,970 from colleagues under the Corporate and Employee Contribution Programme 2005/06.



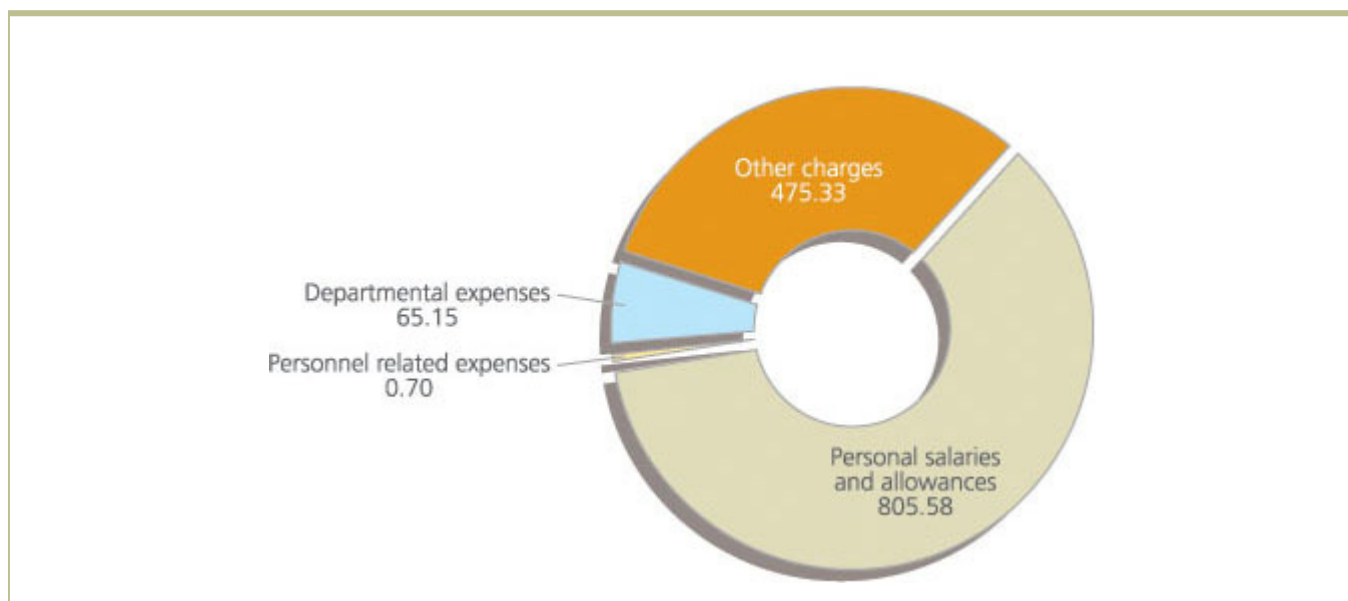
One of our staff awarded at the Secretary for the Civil Service's Commendation Award in November 2006.

### **Our Economic Performance**

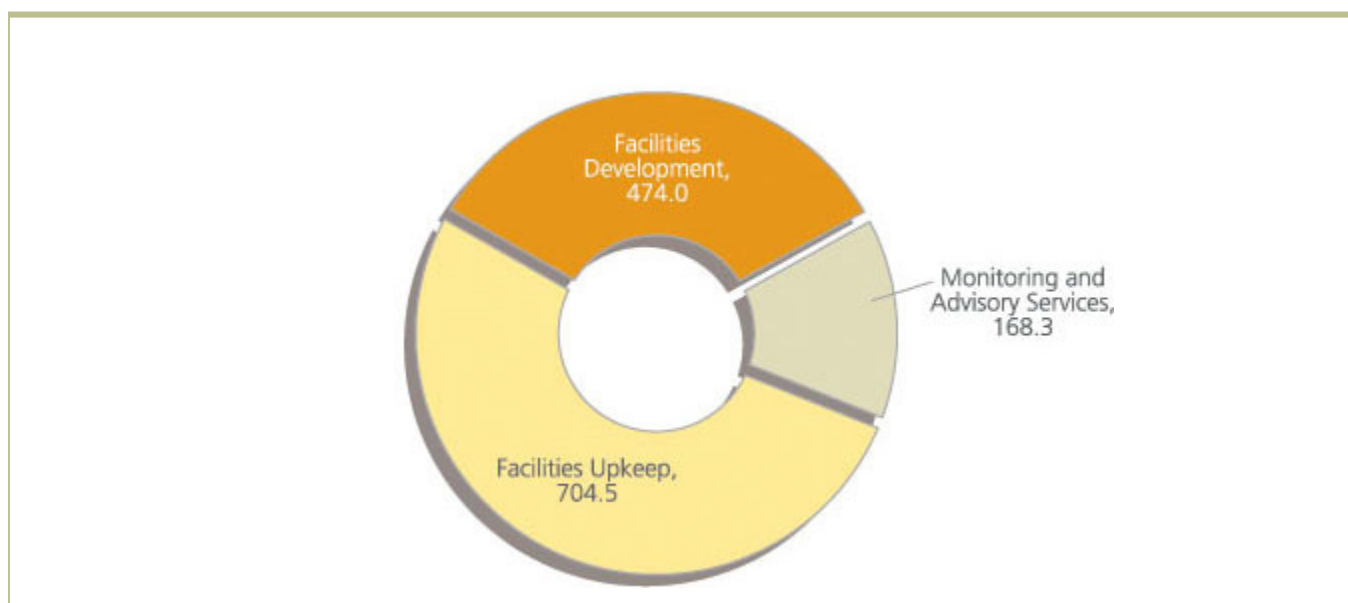
The economic aspect of triple bottom line reporting allows us to reveal how we apply funds for public use and contribute to Hong Kong's overall economic development. During the fiscal year 2006-2007, we maintained our expenditure to HK\$1,346.8 million, equivalent to a 1.5% decrease from the previous fiscal year.

A summary breakdown is provided to outline the overall expenditure and financial provisions within our department. This information is drawn from the Controlling Officer Report of the 2006-07 Estimates of the Government of the HKSAR, which was approved by Legislative Council. Further information on our economic performance is also available at [www.budget.gov.hk](http://www.budget.gov.hk).

#### **Departmental Expenditure 2006-2007 (HK\$ million)**



#### **Financial Provision by Programme 2006-2007 (HK\$ million)**



### ***Sustainability Criteria for Financial Commitments***

Sustainability has become a focal point in our utilisation of public funds. We aim to maximise the value of buildings through the provision of a safe and clean environment for the public.

The departmental budget originates from our internal public funds, and is monitored and reviewed in accordance with sustainability. This includes public consultation prior to proceeding projects to ensure the needs and expectations of the local community can be satisfied, conducting environmental impact assessments, the preparation of emergency contingency plans and the provision of employment opportunities.

During 2006-2007, \$9 billion was spent on building projects undertaken or monitored by the department and \$1.8 billion on routine maintenance and minor alteration works, including 63 consultancy projects.



## ***Assurance for Our Quality Services***

In the past years, we have completed and delivered top quality public buildings and facilities to our clients in a timely manner, with good economic value and within budget. Our Quantity Surveying Branch (QSB), along with our other five branches, assures the quality of our services in maintaining our leading role in the local construction industry.

QSB is primarily responsible for managing and controlling the costs of a construction project, and interfaces with the project teams in areas such as cost estimation, tender documentation and evaluation, post-contract administration, interim payment valuations, cost control and finalisation of accounts. It provides quantity surveying services for public building works including procuring new buildings, renovation or refurbishment of existing buildings, and all the subsequent maintenance.

Apart from these traditional quantity surveying services, QSB also provides professional advice to policy bureaux, government departments, quasi-government bodies and sub-vented organisations. Its professional services in cost management and control for public building works in this regards have resulted in a better use of public funds.

The following sub-sections provide more information on our cost management initiatives at various stages of our public works projects.

### **Project Planning Stage**

Project estimates are essentially based on cost information from previous project experiences and professional estimating techniques. With the knowledge and experience gained from building a large variety of government facilities, QSB takes the role for providing and collating all this information in a comprehensive cost database for the Department. Moreover, the database includes standard phraseology for bills of quantities, standard method of measurement, and a library of standard contract documents. This all-encompassing database of cost information and standard documents secures the provision of our cost advisory service at the highest possible standard.

To further enhance the delivery of our services, research studies on exploring the potential implication of life cycle cost<sup>3</sup> (LCC) will be conducted, and a database of the LCC information of our public facility projects is proposed. The studies and database will make references to the international standards. The LCC techniques may then be applied to the evaluation of alternative design / investment options in our future projects.

### **Tendering Stage**

As the public works agent for procuring and maintaining all the government buildings, we follow strictly the Government's procurement policy including public accountability, value for money, transparency, open and fair competition and equal opportunities to be opened to all eligible domestic and foreign suppliers and services providers.

In addition to the common contract strategy (e.g. lump sum contract) adopted by the construction industry, we also employ other procurement approaches (e.g. design and build contract) for our capital and maintenance works. Various contract strategies bring us a more flexible and effective design on our public works contract. We also investigate the feasibility of other sub-contracting initiatives such as introducing Principal Building Services Subcontractor in a building contract to further enhance the overall efficiency of project management.

### **Project Period**

Upon the project commencement, QSB and other project team members ensure that the project is delivered in accordance with the contract terms and conditions, and within the estimated cost limit. A good cost control and monitoring system facilitates our clients to obtain a clear insight of their expenditures and prevent any overrun of the budget.

QSB' s current practice is the regular issuance of a project financial statement including cost implications of the issued and proposed variations, adjustment of provisional quantities and provisional sums to date etc.. Recently, we have adopted a web based Contract Variation Management System to closely monitor the issuance of variations by electronic means. This system enables a real-time access of project financial information by the project team.

For overall contract administration, we have also, since early 1990' s, implemented the Dispute Resolution Advisors System (DRAd) for our projects. The DRAd studies the project and relevant contract documents and identifies potential problems, so that all parties are well advised and the occurrence of these identified issues can be prevented as far as possible.

The DRAd continues to trace possible problematic areas and claims throughout the project period, so that preventive and corrective actions can be engaged in advance. If a dispute arises, the DRAd provides opportunities for the clients and contractors to state and discuss their views on the case in a private and professional manner. Instead of bearing the risks of long delays and substantial costs in arbitration and litigation, both parties are more than willing to settle any discrepancies.

The DRAd has been proved to avoid claims effectively at an early stage and resolves disputes before they escalate. It also deters the contractor from filing unjustifiable claims and promotes a closer public-private partnership.

## **Auditing**

The quality of our projects is also pledged by a variety of professional and independent audits conducted throughout the project period. The focus area of these audits includes technical, quality, environmental management, site safety, sub-contractor management, risk management, etc.. Our procedures and works are also subject to other audits or checking by the Commissioner of Audit and ICAC. These audit and checking activities serve to maintain and enhance the quality standard of our services.

<sup>3</sup>Life cycle cost includes not only the initial investment, but also the future costs of operation, maintenance and ultimate disposal.

## Environmental Performance Indicators

### Resources Usage - Energy

	Units	2006	2005	2004	2003	2002
Electricity consumed (QGO and APB Centre) [1]	kWh/m <sup>2</sup>	265.2	277.5	277.5	285.6	291.3
CO <sub>2</sub> equivalent to electricity consumption (QGO and APB Centre) [2]	Tonnes	4,267	4,467	4,467	4,596	4,654
Building with OTTV less than 23W/m <sup>2</sup>	% & no. of total no. of projects	100% & 7 of 7	100% & 11 of 11	100% & 10 of 10	100% & 14 of 14	97% & 29 of 30
Building with OTTV less than 18W/m <sup>2</sup>	% & no. of total no. of projects	85.7% & 6 of 7	63.6% & 7 of 11	70% & 7 of 10	36% & 5 of 14	63% & 19 of 30
Energy saved due to energy efficient installations	GWh	39	84	119	108	85
Equivalent monetary savings	HK\$ million	39	84	119	108	85
Avoided CO <sub>2</sub> emissions	in ,000 Tonnes	27.3	58.8	83.3	75.6	59.5

[1] Offices in QGO and APB Centre represent 88% of total ArchSD office space

[2] CO<sub>2</sub> conversion factor, 0.7 tonnes/MWh was used. Previous data were adjusted accordingly.

### Resource Usage - Fuel

	Units	2006	2005	2004	2003	2002
Fuel consumption by ArchSD's pool cars	Litre	19,639	24,169	Not Available	Not Available	Not Available
CO <sub>2</sub> equivalent to fuel consumption by ArchSD pool cars [3]	Metric tonnes	46.8	57.6	Not Available	Not Available	Not Available

[3] CO<sub>2</sub> emission is calculated using mobile combustion CO<sub>2</sub> emissions calculation tool version 1.3 developed by [GHG Protocol Initiative](#). Assuming only gasoline is consumed by ArchSD's pool cars, CO<sub>2</sub> emission = GJ energy (Gasoline used in litre x 0.0344 GJ/unit) x Emission Factor (69.250 kg CO<sub>2</sub>/GJ).

**Resource Usage - Non-Ozone Depleting Substances**

	Units	2006	2005	2004	2003	2002
Refrigerants installed	No. of application	23	26	47	34	34
Fire extinguishing agents	No. of application	4	11	8	9	6

**Resource Usage - Office Materials**

	Units	2006	2005	2004	2003	2002
A4 paper consumption	Reams	21,765	21,182	23,700	25,238	26,610
A3 paper consumption	Reams	1,241	1,378	1,417	1,822	2,005
Envelop consumption	Number	70,812	77,119	65,818	63,324	83,644
Recyclable A4/A3 size paper	Reams / % of total paper purchased	18,984 / 79.5%	12,622 / 64.2%	5,753 / 21.3%	700 / 2.8%	1,320 / 3.7%
Types of eco-friendly office consumables	Types	13	13	18	17	17

**Resource Usage - Timber & Water Use**

	Units	2006	2005	2004	2003	2002
Timber saving	Volume of Timber Saved in m <sup>3</sup> (Ratio Normalised [4] by Contract Value)	284.69 (0.20)	1,382 (0.56)	1,461 (0.46)	1,566 (0.29)	2,718 (0.36)
Water saving	No. of Water-saving Sanitary Appliances (Ratio Normalised by Contract Value)	1,473 (1.00)	2,831 (1.15)	3,312 (1.29)	3,760 (0.71)	2,400 (0.34)

[4] The normalised ratio is an indication of the extent ArchSD has improved in an area after taking into account the changes in contract value each year, so as to facilitate better comparisons over time. Such data in 2004 & 2005 are re-adjusted due to incorporation of data from all contract works, also including works for maintenance and improvement.

### Waste Management

Construction & demolition materials	Units	2006	2005	2004	2003	2002
C&D waste disposed of to landfills	Tonnes	46,858	76,536	96,793	107,126	42,100
C&D materials disposed of to public fill areas	Tonnes	206,209	585,447	651,057	616,664	835,515
Recyclable Waste Collected at APB Centre						
Waste paper	kg	2,475	4,570	6,859	5,600	5,950
Aluminium cans	No.	220	254	546	1,248	Not Available
Plastic bottles	No.	265	424	629	1,113	Not Available

### Environmental Convictions of Contractors

	Units	2006	2005	2004	2003	2002
Convictions per 100,000 manhours	ArchSD sites (HK sites)	0.140 (0.518)	0.231 (0.417)	0.515 (0.848)	0.307 (0.953)	1.432 (1.729)

### Environmental Expenditure

	Units	2006	2005	2004	2003	2002
Resources devoted to environmental works	Value (\$ million)	639.45	664.1	675.3	480.0	542.9
Percentage of annual expenditure		7.1%	6.0%	5.2%	4.1%	5.2%

## Social Performance Indicators

### Contractor's Accident Rate

	Units	2006	2005	2004	2003	2002
No. of fatalities	ArchSD	2	3	1	1	4
Fatal accident rate per 100,000 manhours	ArchSD (HK Construction Industry)	0.0085 (0.008)	0.0099 (0.012)	0.0024 (0.0072)	0.0021 (0.011)	0.01 (0.01)
No. of non-fatal accidents	ArchSD	124	184	275	330	369
Non-fatal accident rate per 100,000 manhours	ArchSD (HK Construction Industry)	0.53 (1.79)	0.61 (1.67)	0.66 (1.68)	0.68 (1.90)	0.94 (2.37)

### Community Work

	Units	2006	2005	2004	2003	2002
Total number of voluntary work hours carried out by our staff	Hours	2,005	1,194	1,360	577	Not available
Number of active Voluntary Service Team members	No.	35 out of 1,699	47 out of 1,813	41 out of 1,887	33 out of 1,981	Not available
Number of staff received commendation for voluntary service	No.	12	14	1	6	Not available

### Staff

	Units	2006	2005	2004	2003	2002
Staff establishment (As at March 31 each year)	No.	1,699	1,813	1,887	1,981	2,037
ArchSD staff attended training	No.	2,548	1,255	1,293	4,323	5,439
No. of training courses (including internal and external seminars/ workshops/ training courses/ visits)	No.	324	180	237	60	Not available
Staff injury cases	No.	5	7	1	4	2
Staff sick leave granted	Days	110	207.5	91	32	31

### ***Economic Performance Indicators***

	<b>Units</b>	<b>2006-2007</b>	<b>2005-2006</b>	<b>2004-2005</b>	<b>2003-2004</b>	<b>2002-2003</b>
Personal salaries and allowances	HK\$ million	805.58	823.81	872.64	933.23	967.97
Personnel related expenses [5]	HK\$ million	0.70	0.75	0.81	1.09	Not available
Departmental expenses	HK\$ million	65.15	66.69	68.69	78.31	109.87
Other charges	HK\$ million	475.33	475.63	480.02	478.70	510.78

[5] Personnel related expenses including mandatory provident fund and civil service provident fund were required since 2004.

## Case Study One - Stanley Complex



Regarded as a blend of scenic views with historical monuments, Stanley is a renowned tourist destination. To serve as a welcoming landmark as well as accommodating growing local population needs, Stanley Complex has been constructed.

A state-of-the-art facility located on Stanley New Street, the four-storey building is intended for public multi-purpose use with 6,775 m<sup>2</sup> of covered floor area.

Stanley Complex caters for various individual needs including a community hall, an exhibition area, a performance stage, a library, a sports arena, a dance room, a table-tennis room, a multi-activities room, a children playroom, and a changing room.

Architects have been tested with the task of blending historical value, social elements and environmental measures within one building. In tune with sustainable development measures, this multi-purpose centre serves as the focal point of the Stanley community, facilitating the progressive development of cultural, recreational, learning and environmental aspects.



### Environmental Considerations

- The courtyard not only allows cooling by cross ventilation, but the thick float laminated glass floor with motorised louvres helps maximise the use of daylight in the Community Hall during daytime, and helps to illuminate the courtyard when the motorised louvres are closed at night.
- Bamboo is planted inside the courtyard for sun shading and for greening.
- In summer time in the main lobby, solar gain is minimised by the use of double glazing with low E-coating together with planting. In winter time, solar gain warms up the main lobby, and natural ventilation is used to minimise energy consumption.
- The roof garden not only increases the amount of open space in the built up area but also provides visitors a venue from which to enjoy sea views.
- To enhance the penetration and utilisation of daylight, the external wall of Conference Room and Offices are made of glazing and glass blocks.
- A metal screen and planting are used to screen off direct sunlight during the hot summer months to prevent solar gain. However, in winter, there is solar gain which saves heating costs.
- The courtyard acts as a vent shaft and cross ventilation allows natural ventilation to flow to the semi-outdoor spaces to enhance air circulation.
- A curved glazed wall in the library allows in natural daylight thereby minimising energy consumption for lighting during daytime. At night, it acts as a beacon guiding visitors towards the Stanley waterfront.
- The design of air-conditioning system, lighting, electrical and lift installations strictly complies with the Code of Practice for Energy Efficiency to save natural resources consumption.
- The waste energy from Total Energy Heat Pumps (TEHP) is used to preheat the shower water in the recreation centre.
- Energy saving measures have reduced consumption by 15% through the installation of:





- T5 fluorescent tubes with electronic ballasts,
  - CO<sub>2</sub> sensors for fresh air supply,
  - perimeter zone photocells for lighting in library,
  - Variable Voltage Variable Frequency (VVVF) drive for lift installation,
  - TEHP system for air-conditioning system,
  - separate metering system and multi-functional power analyzer for facilitating the energy audit and management issue of this joint-user complex.
- The chiller plant is designed to allow remote control monitoring. A maintenance team can thus closely monitor its performance.



### Social / Heritage Considerations

- Social and heritage considerations are shown through the provision of a central courtyard within the building. This has become a popular place for visitors and residents to take a well earned rest in between their forays into the famous market.



## Case Study Two - New Radiotherapy Centre and Accident & Emergency Centre in Princess Margaret Hospital



A new Radiotherapy Centre and Accident & Emergency Department replaced the previous Accident & Emergency Department (Block H) at Princess Margaret Hospital. Tailor-made to prevent and combat specific illnesses, the centre is designed to cater for radiotherapy, diagnostic radiology, clinical oncology and spontaneous treatments for accidents & emergency.

Providing over 22,000 m<sup>2</sup> of construction floor area in the building, which is located directly above a MTR tunnel, a major architectural challenge was to reduce the building composite weight to secure levels whilst maximising its height to 12 storeys. In addition to including a wide range of sophisticated medical equipment, the centre adopts modern green building design and technology. The result is an unrivalled stylish outlook within the hospital's building community, combining both functionality and sustainable materials.



Some special features include:

- Preserving green area in the hospital, the Centre is built on the brownfield site of the former Block H instead of a green field site. Since the site lies directly above the MTR tunnels at about 50m, extensive use of lightweight building materials is widely evident, whereby the use of steel plates sandwiched by concrete wall is selected as the composite wall design. The façade is mainly composed of an Unitised Curtain Wall, aluminium cladding, and aluminium louvers. The roof is metal and internal partitioning is made of solid lightweight concrete infill wall system.
- Through the reuse of the existing building fabric and the Unitised Curtain Wall System, construction and demolition waste can be largely reduced. Over 1,775m<sup>2</sup> of the former Block H are conserved and reused, while over 44% of external wall areas are covered by prefabricated unitised curtain wall panels to save waste generation.
- The adoption of Light-weight Concrete Infill Partition System, substantially reduced construction waste and water consumption when compared with traditional blockwork through the saving of on-site concrete mixing. The System also performs better in sound and thermal insulation than block wall.
- Internal areas are lit naturally by skylights. Energy used in artificial lighting is reduced and a more comfortable internal environmental can be achieved. Low-e glass is used to control solar heat gain through skylights.
- Reduction of solar heat gain is evident with the use of low-e double glazing system windows, composite external wall panels, sun shading devices fitted outside all windows facing south, and over 409 m<sup>2</sup> landscaped garden.
- Over 195 m<sup>2</sup> Building Integrated Photo-voltaic (BIPV) panels on roof canopies provide sun shading to upper floors and also generate 19 kW electricity which is adequate for general building use.
- Energy saving installations such as Heat Recovery Chillers, Carbon Dioxide (CO<sub>2</sub>) Sensors for fresh air supply, and Occupancy Sensors for office lightings are installed to allow flexible adjustment in energy consumption, thus saving electricity.
- Over 170 automatic sensor water taps are installed and each sensor tap can save 54% water when comparing with a normal tap. These taps also serve to meet modern infectious control standards.



- To enhance hygiene protection, effluent of hazard materials (HAZMAT) is collected by an independent drain pipe system and temporarily stored in a fibreglass tank. The effluent is then regularly collected by a specialist company for further treatment before being discharged into a public sewer. In addition, activated carbon odour control device is installed to remove sewage treatment odour venting from drainage system, whilst allowing easy passage of surface water.
- Contaminated exhaust air from laboratories and clean rooms is directed to roof level by 6 jet fans. Each jet fan can shoot contaminated air up to minimum 5 m high before dispersing into the atmosphere.
- Vehicular and pedestrian circulation of this new building was carefully planned and re-aligned to improve the existing hospital traffic.



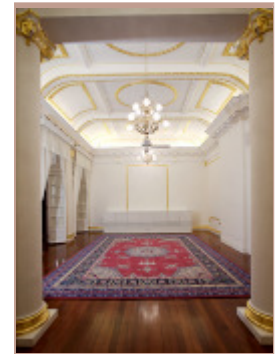
### Case Study Three - Restoration of Kom Tong Hall



Kom Tong Hall, Hong Kong's first steel-frame mansion, was built in 1914, as the private residence of Ho Kom-tong, the younger brother of Hong Kong magnate Robert Hotung. In 2004, this historic building narrowly escaped being demolished and its site redeveloped into a luxury apartment complex. The Hong Kong SAR Government decided to purchase it with the intention of preserving and modifying it into a museum commemorating Dr Sun Yat-sen.

Kom Tong Hall is an exemplary building representing early 20th century architecture in Hong Kong. This four-storey Edwardian building encompasses Greek-style granite columns flanking the top floors of the façade, and is decorated with stained glass windows, wall tiled verandahs, and teak staircase and panels which are well-preserved and in good condition. The essence of restoring Kom Tong Hall lied in reinstating the structure's original appearance while integrating all the essential contemporary facilities in the building without destroying its authenticity.

The restoration programme took nearly three years. The building houses exhibition galleries, reading room, video rooms, interactive room and activity room. Various facilities are designed to cater both for convenient access for the public and for the preservation of the heritage structure.



Key measures taken during the restoration of Kom Tong Hall included:

- A comprehensive background research and investigation of this historical building structure to examine the existing fabric, and substantiate design assumptions. This study served as the foundation for developing the most sustainable and feasible plan for restoring the building.
- An extensive consultation and trial tests conducted for the addition of lift and fire services installation system based on the thorough study of various strategies on fire escape and fire resistance construction to minimise potential construction risks.
- Modern building services fixtures such as air-conditioning and plumbing cleverly concealed in the existing fireplaces and chimneys, so that new piping required minimum openings through slabs and walls.
- Corroded steel columns and deteriorated brickwork were sensitively repaired to minimise further damage.
- The reinstatement of the building structure to its original appearance. Conservators adopted various paint removal methods, e.g. chemical stripping method to remove the deteriorated varnish coating on the brick walls, corncob blasting technique to remove the old paint varnish on the surface of wooden structure, sand-blasting to remove old paint and corroded iron from the balustrades.
- The careful restoration of existing mosaic flooring, ceramic dado wall tile, timber louvre door, brickwork and bamboo planters. For example, glazed balcony wall tiles were no longer available for sale and therefore the specialists retrieved intact tiles from concealed areas to make up for the damaged ones.
- The detailed investigation and numerous trial repairs of broken stained glass windows which were faithfully restored. The corroded metal window frames were also treated and protected by a durable coating.



- The repaving of the street outside Kom Tong Hall with stone, as it once was, and the stone walls were again topped with wrought-iron balustrades. In this respect, historical accuracy took precedence over the design creativity of the architect.

After renovation, Kom Tong Hall will not only be an ideal place for people to learn about Dr Sun Yat-sen and the history of modern China, but also a meaningful place to explore and study this historical building of Hong Kong.



### Case Study Four - Post Occupancy Evaluation



Addressing our clients' concern on the functional requirements and energy consumption of recently completed building projects, we adopted a Post Occupancy Evaluation (POE) approach, which is a management tool tailor-made to evaluate performance and assess effectiveness of the sophisticated building services (BS) system after tenant occupancy. Generally, POE focuses on operational performance monitoring and handover of the project, energy review conducted for the project and new technologies evaluation.



POE encompasses continuous and extensive stakeholder engagement, to ensure building facilities are functioning as the original design intent and comprehensively utilised to fulfil client' s demands. It is an evaluation technique for technological effectiveness, facilitating communication between stakeholders, avoiding repeated mistakes in future considerations, and collecting meaningful data. During the POE, fine tuning of systems was carried out addressing comments made by occupants. An energy review was also conducted with a view to identifying and proposing means to achieve energy efficiency and conservation as well as to recommending good energy saving housekeeping practice.

The following are the potential benefits associated with the implementation of POE to all stakeholders.

- Information collected to facilitate informed decision making;
- Lessons learnt to avoid future repeated mistakes;
- A yardstick to check against whether the system has performed to the design objective;
- A tool to evaluate the effectiveness of any new technologies installed there and then make recommendation on their future uses;
- Improvement to the building environment that enhances the efficiency of the occupants;
- Facilitation of communication between all stakeholders, such as clients, building management and operation & maintenance personnel; and

- Facilitation of any changes (for the better).

POE also helps to facilitate a smooth handover of the BS systems to the end users and maintenance party and allows them to have a better understanding on the design intent and operational condition of them.

Since 2006, eight building POE projects have been conducted to demonstrate the relevant procedures, performance and effectiveness of a POE exercise.

### The POE Experience

The Project comprised of a high (43-storey) block and a low (14-storey) block interconnected at podium level. This POE work was completed satisfactorily in 2006. Three POE teams with representatives from building designers, building occupants, Energy Efficiency Office (EEO)<sup>4</sup> and building maintenance offices were formed, and agreed on the POE exercise to be commenced with an initial client satisfaction survey to solicit occupants' feedback.

By carrying out POE in this project, we comprehensively reviewed the building service system performance and fine tuned settings of building services equipment if necessary, such as reliability of Air Conditioning Installation, power quality monitoring, and ventilation effectiveness of the Basement Carpark. We could ensure that the building service systems provided are able to match the client' s operational need and that the systems are operating in an energy efficient manner. With the full implementation of various Energy Management Opportunities (EMOs), as identified in POE, since April 2005, it was observed that there had been a significant saving on annual overall electricity consumption.

Apart from the above fine-tuning work, liaison with the building management and occupants was carried out with a view to identify any supplemental or improvement works required to meet with their actual operational need.



Meanwhile, the POE teams have evaluated performances of two new technologies installed in the project, Service-on-demand (SOD) escalators and power harmonic filter. Both are concluded to be promising effective measures. SOD escalators helped in reducing about 30% of the total electricity consumption of the escalator installation.

Our efforts in these areas were well received by the client after implementation of POE. The main feedback was commendations on the new technologies installed for enhancement of building energy efficiency and requested the extension of POE period to at least 18 months after the building occupation. Some common issues encountered during the initial post handover in a newly completed building were also identified through this POE exercise.

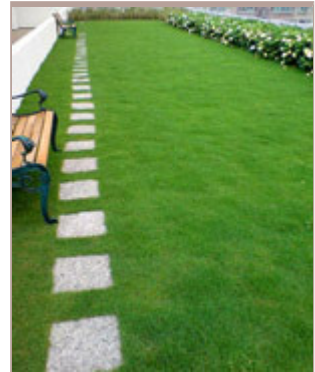
POE is becoming an integral part of ArchSD's ambition to strive for systematic continuous improvement and ongoing stakeholder dialogue.

<sup>4</sup>EEO was established under Electrical and Mechanical Services Department of HKSAR Government to promote energy efficiency and conservation in Hong Kong.

We will continue our commitment to develop our operations in a sustainable manner and strike a balance between environmental, social and economic concerns. The following major initiatives will be our focal areas in our 2007 sustainability and corporate responsibility works.

### ***Fostering Enviro-Sustainability***

Following a decade of environmental works, we will continue to integrate green initiatives into our operations and to influence our stakeholders. We will demonstrate our commitment to the Clean Air Charter through various projects such as green roofing for public buildings and facilities. Apart from government departments, we will extend our technical advisory services in building energy efficiency to subvented organisations. We will carry on being the pioneer in environmental conservation in Hong Kong.



### ***Engaging Stakeholders***

To stimulate a more effective engagement with our key stakeholders, our facilitating tools will be upgraded in 2007. Following the consultancy review in 2006, we will streamline and optimise our Client Satisfaction Survey resulting in strengthened motivation of experience sharing and quality improvement. Post occupancy evaluation will continue to improve offering a win-win situation for both the building users and our department.

### ***Building Mega Projects***

2007 will be the milestone of two of our mega projects: the completion of the boundary-crossing facilities at the Hong Kong-Shenzhen Western Corridor (Western Corridor) under the "co-location" arrangement and the commencement of the Tamar Development project. Both the HKSAR Government and the Shenzhen Municipal People's Government are working with the construction of the new control point to commission the Hong Kong-Shenzhen Western Corridor in 2007, which will facilitate further trading activities in the Pearl River Delta area. Tenders for the Tamar Development project, which is under design and build arrangement, were invited in September 2006. The Tamar Development project will create significant employment opportunities for the local construction industry. Both projects will promote overall regional economic development.























The GRI's G3 Guidelines recommended reporting elements are represented below and provided with either linkage to the reported section(s) or explanation for omission. Our performance is characterised by reporting on all the core GRI performance indicators and also an additional indicator defined by G3 and the Sector Supplement for Public Agencies under the area of Economic (EC), Environmental (EN), Labour (LA), Human Rights (HR), Society (SO), and Product Responsibility (PR).

**Additional indicators**
















We are only reporting on EN5 as an additional GRI indicator.

















 Reported	 Not Reported
 Partially Reported	<b>Text in Green</b> Link to Reported Section



















The linkages of this section should be referred to the online version of this report (<http://www.archsd.gov.hk/>).

	GRI Element (Link to Reported Section)	Reporting Status	Comment
<b>1.</b>	<b>Strategy and Analysis</b>		
1.1.	Statement from the most senior decision-maker of the organisation about the relevance of sustainability to the organisation and its strategy		
1.2.	Description of key impacts, risks, and opportunities		
<b>2.</b>	<b>Profile</b>		
	<b>Organisational Profile</b>		
2.1.	Name of the organisation		
2.2.	Primary brands, products and services		
2.3.	Operational structure of the organisation		
2.4.	Location of organisation's Headquarters		
2.5.	Number of countries where the organisation operates		
2.6.	Nature of ownership and legal form		Part of Hong Kong Government
2.7.	Markets served		
2.8.	Scale of the reporting organisation		
2.9.	Significant changes during the reporting period regarding size, structure, or ownership		
2.10.	Awards received in the reporting period		
<b>3.</b>	<b>Reporting Parameters</b>		
	<b>Report Profile</b>		
3.1.	Reporting period		
3.2.	Date of most recent previous report (if any)		
3.3.	Reporting Cycle		
3.4.	Contact point for questions regarding the report or its contents		
	<b>Report Scope and Boundary</b>		
3.5.	Process for defining report, including determining materiality, prioritising topics within the report, identifying stakeholders the organisation expects to use the report		
3.6.	Boundaries of the report		
3.7.	State any specific limitations on the scope or boundary of the report		No limitations
3.8.	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced		No joint ventures

	operations, and other entities		
3.9.	Data measurement techniques and the bases of calculations		
3.10.	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement		No re-statements
3.11.	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report		
<b>GRI Content Index</b>			
3.12.	Table identifying the location of the Standard Disclosures in the report		
<b>Assurance</b>			
3.13.	Policy and current practice with regard to seeking external assurance for the report  Introduction ◀ Verification Statement ◀		
<b>4. Governance Structure and Management Systems</b>			
<b>Governance</b>			
4.1.	Governance structure of the organisation		
4.2.	Indicate whether the Chair of the highest governance body is also an executive officer		Development Bureau is the highest governance body for ArchSD. Secretary for Development has the authority that responsible to overview the Development Bureau
4.3.	For organisations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members		Within HKSAR Government, it does not adopt unitary board structure. Development Bureau is the highest governance body for ArchSD
4.4.	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body  Our Values & Commitments ◀ Social Review ◀		Apart from our employees, Development Bureau also obtains feedbacks from general public and other stakeholders regularly
4.5.	Linkage between compensation for members of the highest governance body, senior managers, and executives		The appointment and promotion of senior management are to be advised by the independent Public Service Commission in accordance to the Public Service Commission Ordinance
4.6.	Processes in place for the highest governance body to ensure conflicts of interest are avoided		No specific processes for the highest government body All government departments follow internal circulars
4.7.	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organisation's strategy on economic, environmental, and social topics		The appointment and promotion of senior civil servants are to be advised by the independent Public Service Commission in accordance to the Public Service Commission Ordinance
4.8.	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation		
4.9.	Procedures of the highest governance body for overseeing the organisation's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or		Development Bureau is the highest governance body






	compliance with internationally agre		
4.10.	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance		Audit Commission and the Legislative Council act as the evaluation framework for general performance of Government, including Development Bureau
<b>Commitments to External Initiatives</b>			
4.11.	Explanation of whether and how the precautionary approach or principle is addressed by the organisation		
4.12.	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses		
4.13.	Memberships in associations and/or national/international advocacy organisations		
<b>Stakeholder Engagement</b>			
4.14.	List of stakeholder groups engaged by the organisation		
4.15.	Basis for identification and selection of stakeholders with whom to engage		
4.16.	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group  Our Values & Commitments ◀ Highlights ◀ Social Review ◀		
4.17.	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting  Introduction ◀ Social Review ◀ Case Study ◀		
<b>Public Agency Specific</b>			
PA1	Describe the relationship to other governments or public authorities and the position of the agency within its immediate governmental structures  Our Profile ◀ Social Review ◀		
PA2	State the definition of sustainable development used by the public agency, and identify any statements or principles adopted to guide sustainable development policies		
PA3	Identify the aspects for which the organisation has established sustainable development policies		
PA4	Identify the specific goals of the organisation for the each aspects listed in PA3		
PA5	Describe the process by which the aspects and goals in both PA3 and PA4 were set		
PA6	Monitoring of each goal		
PA7	Describe the role of and engagement with stakeholders with respect to the items disclosed in PA6  Our Values & Commitments ◀		

	<a href="#">Highlights</a> ◀ <a href="#">Social Review</a> ◀		
<b>ECONOMIC PERFORMANCE INDICATORS</b>			
	Disclosure on Management Approach (Economic)  <a href="#">Economic Review - Sustainability Criteria for Financial Commitments</a> ◀ <a href="#">Economic Review - Assurance for Our Quality Services</a> ◀		Legislative Council examines and approves departmental budget. Audit Commission conducts regulatory audits and value for money audit, which provides information for Legislative Council to evaluate ArchSD's financial performance
<b>I. Economic Performance</b>			
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments		No direct economic value generated
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change		
EC3	Coverage of the organisation's defined benefit plan obligations		
EC4	Significant financial assistance received from government		No subsidies but direct public fund from government
<b>II. Market Presence</b>			
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation		
EC7	Procedure for local hiring, and proportion of senior management hired from the local community at locations of significant operation		In accordance with Article 99 of the Basic Law, new recruits appointed to the Civil Service on or after 1 July 1997 must be permanent residents
<b>III. Indirect Economic Impacts</b>			
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in kind, or pro bono engagement		Our operations do not involve with infrastructure investments
<b>IV. Expenditures (Public Agency)</b>			
PA8	Gross expenditures broken down by type of payment		
PA9	Gross expenditures broken down by financial classification		
PA10	Capital expenditures by financial classification		
PA11	Describe procurement policy of the public agency as relates to sustainable development		
PA12	Describe economic, environmental, and social criteria that apply to expenditures and financial commitments		
PA13	Describe linkages between the public agency's procurement practices and its public policy priorities		
PA14	Percentage of the total value of goods purchased that were registered with voluntary environmental or social labels and/or certification programmes, broken down by type		
<b>ENVIRONMENTAL PERFORMANCE INDICATORS</b>			
	Disclosure on Management Approach (Environment)		
<b>I. Materials</b>			

EN1	Materials used by weight or volume		
EN2	Percentage of materials used that are recycled input materials		
<b>II. Energy</b>			
EN3	Direct energy consumption by primary energy source		
EN4	Indirect energy consumption by primary source		Although our operation do not generate energy directly, our BIPV installation projects produce energy for our clients' daily usage
EN5	Energy saved due to conservation and efficiency improvements		
<b>III. Water</b>			
EN8	Total water withdrawal by source		No measurement mechanism in place as not necessary to pay for water usage but will investigate opportunity to have separate meters and provide information in future reports
<b>IV. Biodiversity</b>			
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		No data collection mechanism in place but will consider to provide information in future reports
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas		No data collection mechanism in place but will consider to provide information in future reports
<b>V. Emissions, Effluents, and Waste</b>			
EN16	Total direct and indirect greenhouse gas emissions by weight		
EN17	Other relevant indirect greenhouse gas under emissions by weight evaluation		No measurement mechanism in place as we have captured major direct and indirect emission
EN19	Emissions of ozone-depleting substances by weight		We do not use any ozone-depleting substances in our refrigerants and fire extinguishing agents
EN20	NOx, SOx and other significant air emissions by type and weight		No measurement mechanism in place as we do not generate significant NOx, SOx emissions
EN21	Total water discharge by quality and destination		No measurement mechanism in place, but the discharge quality and destination are parameters included in the site environment checklist and monitored during site inspection
EN22	Total weight of waste by type and disposal method		
EN23	Total number and volume of significant spills		No measurement mechanism in place but any significant spills identified during site inspection will be recorded in site environment checklist
<b>VII. Products and Services</b>			
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation		
EN27	Percentage of products sold and their packaging materials that are reclaimed by category		No products sold
<b>VIII. Compliance</b>			
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations		Environmental offences of contractors show the number of cases. The monetary value and records of any other sanctions are kept by the department. We will consider to

			report in the future
<b>SOCIAL PERFORMANCE INDICATORS</b>			
	Disclosure on Management Approach - Labour Our Values ◀ Social Review ◀	☰	
	Disclosure on Management Approach - Human Right Social Review ◀	☰	
	Disclosure on Management Approach - Society Social Review - Our People ◀ Social Review - Community Services ◀ Social Review - Public Engagement ◀	☰	
	Disclosure on Management Approach - Product Social Review ◀ Case Study ◀	☰	
<b>SOCIAL PERFORMANCE INDICATORS: LABOUR PRACTICES AND DECENT WORK</b>			
<b>I. Employment</b>			
LA1	Total workforce by employment type, employment contract, and region	☰	
LA2	Total number and rate of employee turnover by age group, gender and region	☰	
<b>II. Labour/ Management relations</b>			
LA4	Percentage of employees covered by collective bargaining agreements	☰	
LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements	📄	Following government internal circulars, no minimum notice period is required. But staff are informed and consulted regarding significant changes beforehand, and notices are issued as soon as possible. We will report in the future when relevant procedures are developed.
<b>III. Occupational Health and Safety</b>			
LA7	Rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities by region	📄	No adequate measurement mechanism in place for staff but will consider to report in the future
LA8	Education, training, counselling, prevention and risk-control programmers in place to assist workforce members, their families or community members regarding serious diseases	☰	
<b>IV. Training and Education</b>			
LA10	Average hours of training per year per employee, by employee category	☰	
<b>V. Diversity and Equal Opportunity</b>			
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	☰	
LA14	Ratio of basic salary of men to women by employee category	☰	
<b>SOCIAL PERFORMANCE INDICATORS: HUMAN RIGHTS</b>			
<b>I. Investment and Procurement Practices</b>			
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have	☰	Our operations do not involve with investments

	undergone human rights screening		
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	X	No measurement mechanism in place as it is not a formal practice in local public agency, but we award projects to contractors who do not hire illegal immigrants. All contractors are closely monitored on their convictions of employing illegal immigrants and incidents on wage disputes, and we will report in the future
<b>II. Non-discrimination</b>			
HR4	Total number of incidents of discrimination and actions taken	≡	
<b>III. Freedom of Association and Collective Bargaining</b>			
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	≡	
<b>IV. Child Labour</b>			
HR6	Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour	≡	
<b>V. Forced and Compulsory Labour</b>			
HR7	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour	≡	
<b>SOCIAL PERFORMANCE INDICATORS: SOCIETY</b>			
<b>I. Community</b>			
SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting  Social Review - Community Service ◀ Social Review - Public Engagement ◀ Case Study ◀	≡	
<b>II. Corruption</b>			
SO2	Percentage and total number of business units analysed for risks related to corruption	X	# Independent Commission Against Corruption (ICAC) of HKSAR Government is responsible for conducting on-going independent analysis. No data collection mechanism is currently in place with ICAC. We will investigate and report in the future report
SO3	Percentage of employees trained in organisation's anti-corruption policies and procedures	≡	
SO4	Actions taken in response to incidents of corruption	≡	
<b>III. Public Policy</b>			
SO5	Public policy positions and participation in public policy development and lobbying	≡	
<b>V. Compliance</b>			
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	≡	No significant non-compliance with laws and regulations
<b>SOCIAL PERFORMANCE INDICATORS: PRODUCT RESPONSIBILITY</b>			
<b>I. Customer Health and Safety</b>			

PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures		
<b>II. Products and Services Labelling</b>			
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements  Social Review ◀ Case Study ◀		
<b>III. Marketing Communication</b>			
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship		As public agent, ArchSD is required to comply with all local regulations. However, there is no specific programme in Hong Kong to secure adherence to laws and guidelines related to marketing communications for public agency. We will report in the future when relevant programmes are developed.
<b>V. Compliance</b>			
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services		No significant non-compliance with laws and regulations
<b>SOCIAL PERFORMANCE INDICATORS: Administrative Efficiency</b>			
<b>I. Administrative Efficiency</b>			
PA15	Results of assessments of the efficiency and effectiveness of services provided by the public agency, including the actions taken to achieve improvements in service delivery.  Social Review ◀ Case Study ◀		

Remarks:

#ICAC is an independent commission, which reports directly to Chief Executive of HKSAR Government, is responsible for conducting analysis for risks related to corruption for government departments.



Hong Kong Quality Assurance Agency (HKQAA) was commissioned by Architectural Services Department (ArchSD) of the Government of the Hong Kong Special Administrative Region to undertake an independent verification for its Sustainability Report 2007 (the Report). The Report was prepared according to the Global Reporting Initiative (GRI) G3 Guidelines and the Sector Supplement for Public Agencies, as well as to meet the Application Level A+ criteria.



HKQAA's verification was performed in August 2007. The objective of the verification was to provide independent opinions on the conformance of the Report to the GRI G3 criteria for the A+ Application Level, as well as the materiality, completeness, and accuracy of the information presented in the Report. The verification also aimed to assess the data management systems for collection and consolidation of data for the Report.

### ***Scope of Verification***

HKQAA's verification was limited to the information presented in the Report with respect to ArchSD's environmental, social and economic and health and safety performances.

### ***Verification Methodology***

HKQAA's verification was designed to gather evidence on which to base the conclusions. The verification process comprised an interview with top management, a review of the report, selection of representative sample of statements and the core performance indicators defined in the GRI G3 guidelines and the Sector Supplement for Public Agencies, and verification of selected statements and indicators.

The sample verifications were conducted through interviews with the responsible ArchSD employees and review of the supporting documents, records, data along with the methodologies used. The verification was carried out at ArchSD head office and its APB Centre.

### ***Conclusion***

Based on the scope of the verification and the information and data available for review during the verification process, objective evidences were found to support the following conclusions.

### ***Conformance to GRI Criteria***

The Report included all required GRI G3 contents and performance indicators which were relevant to the ArchSD's operation. Explanatory note was provided for reason where the information of indicator was not presented in the Report. In the opinion of HKQAA, the Report framework generally met the GRI G3 Application Level A criteria and thereby the self-declaration of the GRI G3 Application level was appropriate.

### ***Materiality***

The Report demonstrated ArchSD's vision and strategy to manage its sustainability issues. Main stakeholders were engaged in its business operation. The Report summarized ArchSD's policy, long term objectives, targets and achievements on the social, environmental and economic challenges.

### ***Completeness***

The Report provided a comprehensive and balanced overview of ArchSD's performance with respect to its core activities. The Report fairly and honestly presented ArchSD's commitments, objectives, targets, programs, performances and achievements for its major social, environmental, economic and health and safety managements.

**Accuracy and Reliability**

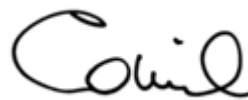
The selected statements and the core GRI indicators were checked and assessed and they were consistent with the supporting materials examined by HKQAA. Based on the information provided for the verification, it was our opinion that ArchSD had a well-established internal reporting and review system which ensured a reasonable level of accuracy and reliability for the information presented in the Report.

**Recommendation for Future Report**

For future report, ArchSD is encouraged to continue to adopt the GRI G3 Guidelines for sustainability reporting. In particular, we recommend ArchSD to consider to disclose further information on the stakeholders' expectations arising from their engagements and to enhance the data collection mechanism to report all recommended GRI indicators.



Jane Lin  
Lead Verifier  
Hong Kong Quality Assurance Agency



Connie Sham  
Manager, Strategic Business  
Hong Kong Quality Assurance Agency

## Sustainability Report 2007

Thank you for reading our report. Your comments and suggestions on it are important as they help us not only to improve our sustainability performance, but also to improve the quality of our next report. So, we would be grateful if you could take a few minutes to complete the following form and send it back to us.

1. Provide us your rating to the following **aspects** in the report:

	Excellent	Good	Adequate	Marginal	Poor	Additional comments
Topics covered are relevant and interesting?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Contents and information are comprehensive?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Text is clear and easy to understand?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Graphs and charts are clear and easy to understand?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Report is a pleasure to read?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Overall rating is?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

2. How would you rate our report section?

	Excellent	Good	Adequate	Marginal	Poor	Additional comments
Introduction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Director's Message	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Our Profile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Our Values & Commitments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Highlights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Environmental Review	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Social Review	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Economic Review	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Case Studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Looking Forward	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Statistics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
GRI Content Index	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

3. Do you think there are relevant aspects that are not covered by this report?



4. To which stakeholder group do you belong:

- Client of ArchSD
- Government Department
- Consultant / Contractor / Supplier / Construction Industry
- Architect / Engineer / Landscape Architect / Surveyor
- Environmental NGO
- Social NGO

## Architectural Services Department - Sustainability Report 2007 - Feedback Form

- Academic / Education Sector
- Staff of ArchSD
- General Public
- Other

If you would like to receive future reports / information from us, please provide your contacts:

Your Name:

Your Organisation:

Your Telephone:

Your Email address:

Thank you and we appreciate your feedback.

You may also print this page and fax to: +852 2596 0361 or contact our Integrated Management Unit by email to [imu@archsd.gov.hk](mailto:imu@archsd.gov.hk).

## ***Sustainability Report 2007***

We welcome your enquiry and comments.

Your Name:

Your Email address: \_\_\_\_\_

Comments:

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