

Focusing on Greener Buildings

Stanley Complex



## ArchSD Sustainability Report 2009 - Table of Contents

About Us	1
About this Report	
- Reporting Objectives	4
- Reporting Scope	5
- Reporting Principles	6
- Materiality	7
- Note to Reader	8
Message From The Director	9
Our Approach	
- Strategy and Management	10
- Stakeholder Engagement	16
2008 Highlights	
- Green Buildings	17
- Heritage Conservation	21
- Economic Conditions	24
- Recognitions and Awards	26
Our Works	
- Project Quality	29
- Health and Safety	31
- Supply Chain Management	37
- Project Environmental Assessment	41
- Research and Development	42
2008 Projects	
- Overview	43
- Stanley Waterfront Improvement Project	46
- Ping Shan Tang Clan Gallery	47
- Caritas Lok Kan School	49
Industry Partners	
- Approach	51
- Experience Sharing	53
Employees	
- Staff Relations	54
- Staff Development	57
Community	
- Our Approach to Supporting the Community	58
- Community Services	59
Moving Forward	
- Green Performance Framework	62
- Stakeholder Engagement	63
- Business Plan	64
Data Summary	
- Performance Data	65
Report Verification	69
GRI Content Index	71
Glossary	81
Feedback	82

## About Us



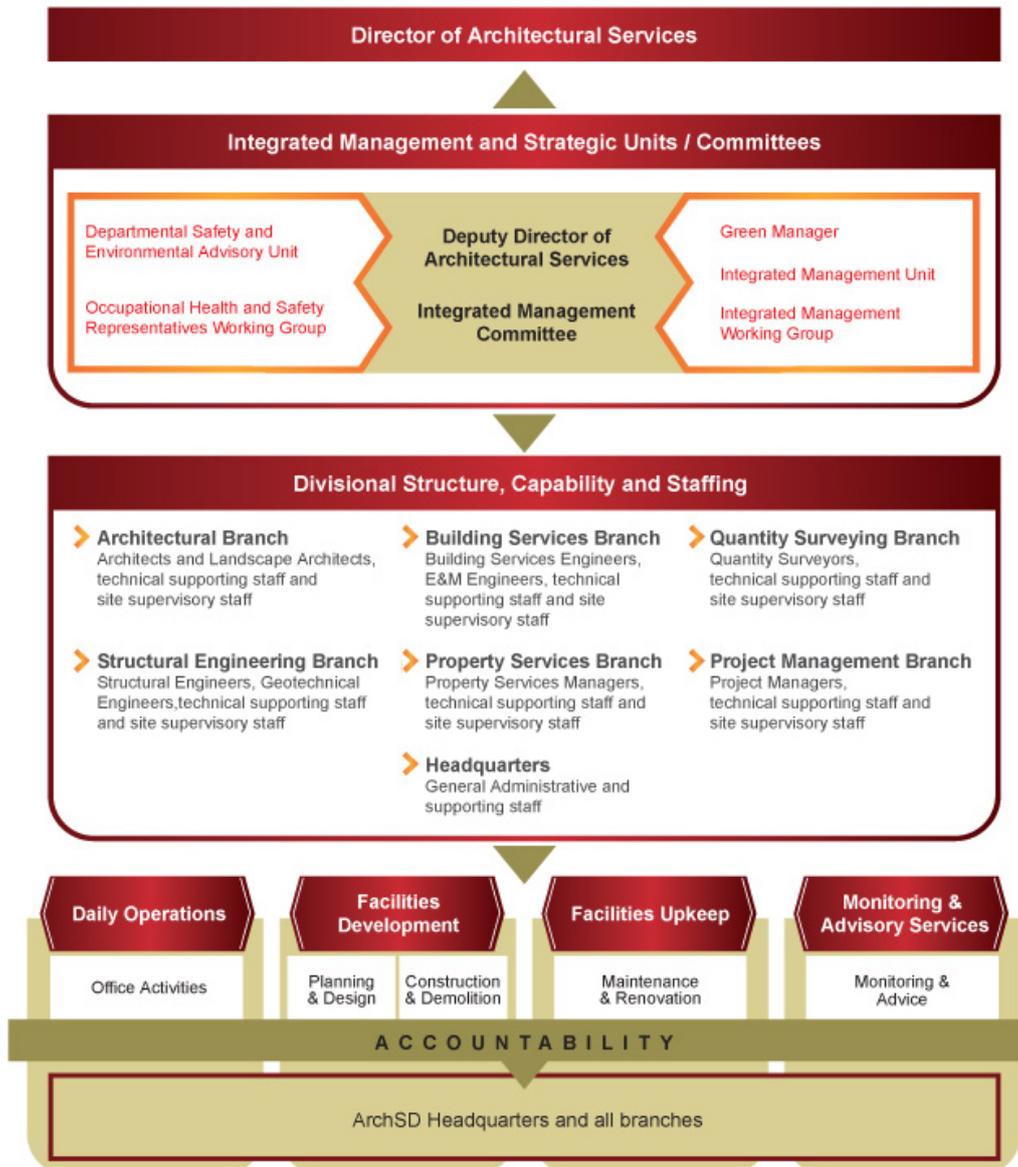
We are the works agent for the HKSAR Government facilities development and facilities upkeep.

Our role in the HKSAR Government

### ArchSD role in the HKSAR Government



## Organisational Structure



## Key Facts about ArchSD

Founded on: 11 April 1986

Staff Establishment: 1,776 (as of 31 March 2009)

Headquarters: Queensway Government Offices, 66 Queensway, Hong Kong

Other Office Locations: APB Centre, Hunghom, Kowloon 17/F - 19/F, 410 Kwun Tong Road, Kwun Tong, Kowloon

Total Office Spaces: Approximately 29,000 m<sup>2</sup> (as of 31 December 2008)

Scale of Services: (as of 31 March 2009)

- Number of Subvented / Entrusted projects reviewed: 856 (as of 31 December 2008)
- Number of Facilities Development Projects completed: 45
- Building Floor Area of Properties maintained: 28,432,000 m<sup>2</sup>
- Expenditure on Facilities Development Projects: HK\$ 6,261 million
- Expenditure on Facilities Upkeep works: HK\$ 3,229 million
- Value of the Subvented / Entrusted projects reviewed: HK\$ 44.9 billion (as of 31 December 2008)
- Value of New works under development: HK\$ 61 billion

## Our Services

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.

Ref Link:

- HKSAR Government

About  
this Report



## Reporting Objectives

With the aim of providing transparent and credible information for our stakeholders, we have continuously tried to improve our annual reporting activity. Now in our eleventh year of reporting, this sixth annual sustainability report for the Architectural Services Department of the Government of the Hong Kong Special Administrative Region (HKSAR) has evolved from an Environmental Report with the added disclosure of our economic, social and environmental performance.

This report is structured with an emphasis on our operation and sustainable management as well as our interaction with different stakeholders, so as to illustrate how we embrace economic, social and environmental aspects into our core business activity and our stakeholders.

## Reporting Scope

The Sustainability Report 2009 covers our sustainable performances (from project planning to facility maintenance) from 1 January 2008 to 31 December 2008. During the reporting period, there was no significant change regarding the size, structure and ownership of the department.

Data are presented as absolute figures. For ease of comparison, for priority issues are normalised into comparable terms where appropriate and practicable. Qualitative information covers all our direct activities unless otherwise stated. Quantitative data are presented for all our six branches, excluding data from contractors and suppliers, unless otherwise stated. Financial data are recorded according to financial year ended 31 March 2009. All monetary values are in Hong Kong Dollars.

## Reporting Principles

This Report is produced in compliance with 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 content of the report satisfies the requirements of "A+" level as defined in the application level system of GRI G3 Guidelines. A GRI Content Index is established to link up different performance indicators with relevant report content for easier reference. The third-party independent assurance of the report further confirmed the credibility of the report and the attainment to "A+" level.



## Materiality

Working together among our Integrated Management Unit, representatives from various branches, representative stakeholders, our external consultant, and under the direction of our Deputy Director, the report content is devised and prioritised in meeting the G3 Guidelines and our key stakeholders' expectations.

## 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.
- Search function facilitates readers to efficiently find interested sections or information within the Report
- "My Report" function enables consolidation and printing of interested section(s) into a report.

## Message From The Director



Dear Stakeholders,

On behalf of Architectural Services Department of the Government of the Hong Kong Special Administrative Region, I welcome you to our sixth Sustainability Report, SR 2009. This presents our sustainable development activities in 2008 and, similar to last year, this report has achieved the A+ level of the Global Reporting Initiatives' (GRI) G3 guidelines.

Last year, we continued to develop our sustainable development strategy and our management systems by setting ourselves more challenging targets for continual improvement in our economic, social and environmental performance.

In response to climate change issues and reducing our contribution of greenhouse gas emission in Hong Kong, we have incorporated updated environmental requirements, energy efficient installations and greening works to bring about economic, social and environmental benefits to our community and have chosen the title "Focusing on Greener Buildings" for this report in order to showcase our green building design and construction.



In 2008, construction costs soared, and they along with the global financial crisis, have posed some of the greatest challenges to the operating environment of the construction industry. In order to alleviate the situation, we have supported Government policy in the creation of additional job opportunities through speeding up project commencement time.

In the face of such a changing working environment, we do not intend to rest on our laurels but will work closely with the industry in order to promote further green buildings in Hong Kong.

I hope that you will find this report informative, and I would encourage you to provide your comments and suggestions via our [Feedback](#). Your comments will be important for improving our performance in the future.

Mrs Marigold Lau JP  
Director of Architectural Services



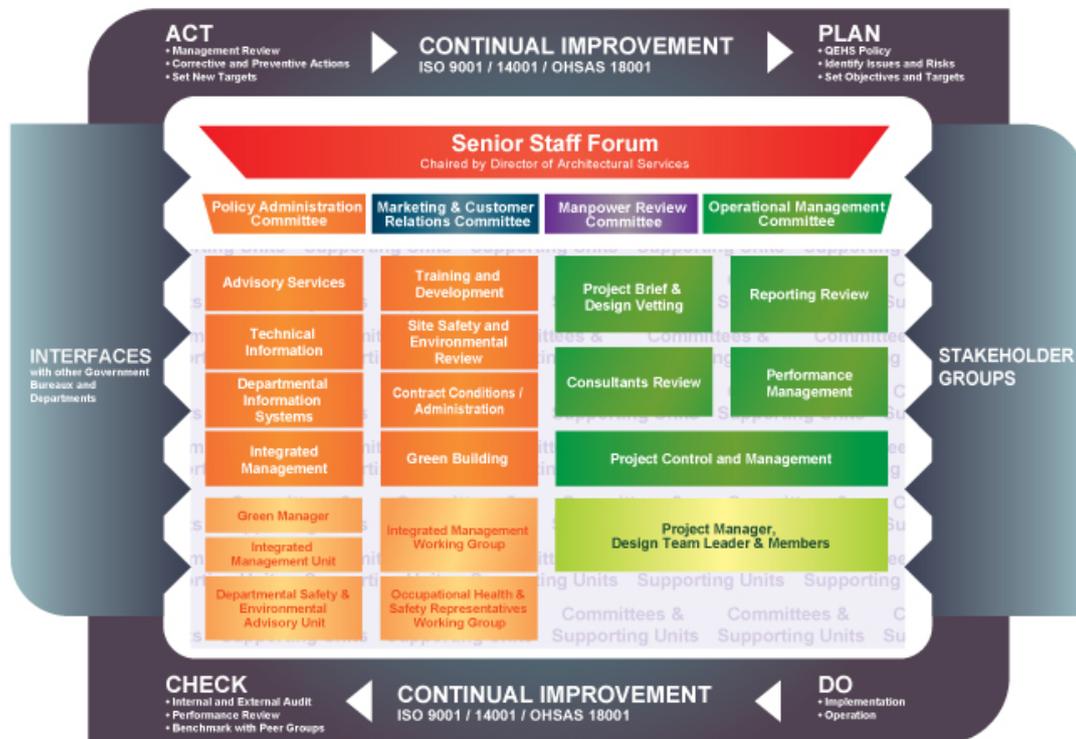
## Strategy and Management

Being a government department, it is important for us to strictly follow the policies of the HKSAR Government and the initiatives of bureaux and departments in achieving sustainable development within our society. Our vision, mission and value have been a firm commitment to the Integrated Management System (IMS) principles that help us address emerging sustainability challenges in a responsible way.

We operate under a structured governance framework to track our triple bottom line performance, economic, social and environmental, to ensure balanced and sustainable operations. Our IMS, principally developed under the international standards (ISO 9001, ISO14001 and OSHAS 18001), is managed by the Integrated Management Committee under the direction of the Senior Staff Forum and Policy Administration Committee. One of the objectives is to oversee the long-term implementation of IMS and assure that the sustainability impacts on our stakeholders and the environment are being managed effectively.

Following the policy and guidelines set by Civil Service Bureau and Development Bureau, we effectively manage social matters, particularly related to labour and human rights, with human resources management and ethical supply chain management.

### Governance Structure





The Senior Staff Forum is chaired by our Director and oversees the management and operation of ArchSD. From left to right: Mrs. P. Tam, AD(A); Mr. C.P. Chow, PD2; Mr. K.S. Shum, AD(QS); Mr. S.K. Ho, AD(BS); Mr. S.W. Fong, AD(PS); Mrs. M. Lau, DArchS; Mr. W.W. Li, AD(SE); Mr. K.K. Leung DArchS; Mr. W. Lee, PD3; Mr. H. Choi, PD1.

With a view to centralising and collaborating effectively the resources on handling green building issues and to address the increasing concern from bureaux and the public, we have set up a new Green Building Committee, to handle all green building issues.

## Vision, Mission and Value

### 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 and 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:-

- Fulfil the agreed requirements of our Clients to the highest professional standards.
- Deliver our services in an environmentally responsible manner by implementing conservation of energy, preventing pollution and reducing the consumption of natural resources.
- 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.
- Comply with all relevant legislations and other requirements, and wherever practicable, to achieve standards beyond those that are legally required.
- 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.
- 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

Managing risks and pursuing opportunities are an integral part of our operations. We handle economic, social and environmental issues with a systematic defined mechanism adopted in our IMS by carrying out the "Plan, Do, Check, Act" cycle. We also carefully consider any potential impact that we may make on the economy, society and the environment during the decision making process.

We have structured risk management processes based on former Environment, Transport and Works Bureau Technical Circular (Works) No. 22/93 on "Estimating Using Risk Analysis" and No. 6/2005 on "Implementation of Systematic Risk Management in Public Works Projects". The overall process is under the supervision of the Development Bureau.

In order to prevent incidence of corruption, we have developed stringent requirements on integrity management in our internal guidelines. We are subject to monitoring and independent analysis on our integrity performance by the Independent Commission Against Corruption, ICAC, and, in 2008, two assignment studies were conducted to identify areas of improvement for the department. We will also report to the ICAC any attempt of bribery to a staff member.

## Objectives and Targets

In 2008 we achieved 90% in all our environmental, social and economic objectives and targets. We also set new targets for enhancing energy conservation and strengthening our staff's technical knowledge on advance technology.

***Environmental Objectives***

Long Term Objectives	Targets for 2008	Achievement
Reduce water consumption	To install water-saving devices for 90% of sanitary appliances in new buildings	Achieved 92% 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 75% 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
	To adopt Building Energy Management System for all new joint user buildings	Achieved 100% of new joint user building projects
	To apply services-on-demand control for escalator / traveller for 100% of new projects	Achieved 100% of new projects
	To use T5 fluorescent light or LED lamp for passenger lift car illumination for 100% of new projects	Achieved 100% of new projects
	In not less than 80% of new projects where lighting effect of spotlight and display is required to be created by miniature tungsten halogen lamp, energy efficient lighting such as LED lamp should be employed for substitution of these lamps.	New target for 2009
Improve visual and air quality of our city	To landscape usable roof area /or terrace for 100% of new projects	Achieved 100% of new projects
	To incorporate vertical greening in 46% of new projects	Achieved 50% of new projects
	To enhance staff's knowledge of vertical greening	Study on the types, techniques and plant species was being carried out. Experience sharing sessions were held with colleagues in July and Sept 2008

***Social Objectives***

Long Term Objectives	Targets for 2008	Achievement
Minimising accident rate for ArchSD staff	Accident rate for ArchSD staff should be not more than 2 occupational injuries per 1,000 staff per year	Achieved 0 occupational injuries per 1,000 staff per year
Minimising accident rate in ArchSD contracts	Accident rate in ArchSD contracts should be less than 0.75 reportable accident per 100,000 man-hours worked	Achieved 0.43 reportable accident per 100,000 man-hours worked
Maintaining 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 Four in-house workshops / seminars were organised with a total of 430 attendants
Encourage practice of environmental protection measures and communicate our environmental policy to other Government departments / organizations	To record and monitor general technical advice on environmental protection measures	Achieved 1,798 environmental advices were given to various Government departments / organisations
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 Sustainability Report 2008  Heritage Impact Assessment on Yau Ma Tei Theatre and Red Brick Building Green Contractor Award 2007
Provide continuous training to staff on matters related to environmental issues	To organise staff participation in courses / seminars / visits related to environmental issues	Achieved 17 external events were attended by staff More information can be found in Industry Partners
Strengthen health and safety knowledge for project staff with external training	At least 6 external safety training courses on latest safety technology, current safety legislation etc should be arranged for project staff per year.	Achieved 18 external training courses were arranged with 654 attendants. Also 391 staff obtained Green Card through completing CITA's green card self learning package.

***Economic Objectives***

Long Term Objectives	Targets for 2008	Achievement
Improve the quality of our services and project delivery	To ensure timely delivery of at least 80% of Capital Projects	Achieved 95.5% 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 5.7% over-spending at end of 2008/09.
	To harness the resources of the private sector through outsourcing of public projects. To maintain the target percentage of outsourcing. (90% at end of 2008)	Achieved 91.6% value of capital works projects was outsourced.
	To achieve 100% of the completed projects with at least Satisfactory level or above on the overall performance in the Client Satisfaction Survey.	Achieved 100% of completed projects.
	Develop in 2009 not less than 2 no. of design tool kits / guidelines for special / innovative BS installations to strengthen staff technical knowledge on advance technology	New target for 2009.

## Stakeholder Engagement

We recognise that our operations have an impact on a wide range of stakeholders and so we have undertaken a dedicated stakeholder engagement exercise to collect their views and to enhance the quality of this report. We also seek their views through face-to-face meetings, interviews, experience sharing seminars and conferences, LegCo meetings, online feedback and news searches.

Throughout this report, we have included key comments and quotes from the following stakeholder groups:

- Employee
- Client
- Building Contractor
- Professional Organisation
- Statutory Safety Body

### Stakeholder Engagement Matrix



The different engagement approaches (including face-to-face meetings, interviews, experience sharing seminars and conferences, periodic LegCo meetings, online feedback forum and news search) form a circular boundary around the inner stakeholder groups.

**2008  
Highlights**



## Green Buildings

In promoting green buildings, we pay increasing attention to adopting green features in the building design. In addition, we enhance the overall built environment through adopting energy conservation measures, manage indoor environmental quality, control carbon emission resulting from the building operation, implement waste reduction and water management and conduct building environmental performance assessment.

### Green Roofs

Since 2001, we have included roof-top greening whenever practicable, in capital works projects like schools, crematoria, hospitals, offices, community centres, etc. and a total of 27 such projects have been completed since 2006. We have also included green roofs as retrofit projects in existing Government buildings with a further 18 projects completed since 2006.



Before and After: Green roof project at Tuen Mun Government Depot



Before and After: Low Block at Queensway Government Offices

## New General Specifications on Green Buildings, GS.

We have raised the standards of the building environmental performance and provided more updated environmental-friendly specifications (specifically for energy efficient installations) in our latest General Specifications which became effective in September 2007.

We keep track on the latest developments regarding the changes in British Standards, developments of the Construction Industry and initiatives from Bureaux including various Green Building and Green Procurement initiatives. We would consider them further in the next review of the General Specifications for Government Buildings of the HKSAR. Some issues being considered include the followings:

- Proposed updating of British Standards to Euro Standards / Eurocodes;
- Updated requirements of specifications in civil and building construction works;
- Inclusion of new equipment/materials that perform better from the advancement of technology related to sustainability;
- Sustainable development/green building practices including use of green building materials, recycling and re-usable products etc.

## Building Energy Code

Since the launch of the HK Energy Efficiency Registration Scheme for Buildings in 1998 to promote the application of the Building Energy Codes (BEC), we have registered a number of building projects with this scheme. BEC stipulates the minimum design requirements on five areas of installation including lighting, air-conditioning, electrical and lift & escalator installations.

To adopt a more proactive approach, we raised the baseline for calculating the estimated energy saved from our completed projects by making reference to the BEC 2007 edition. Though the majority of the completed projects in 2008 were small in scale, the energy saved was still encouraging. We continue to explore more advanced energy efficient strategies in order to reduce our carbon footprint even further.



We are committed to make concerted efforts with bureaux and departments to achieve their energy-saving targets as far as possible. To help us do this, we will improve the accuracy of our estimation on energy consumption and enhance our communication with stakeholders including clients and utility companies for future building projects.

## Carbon Audit of Buildings

In response to global trends on climate change, we have joined an inter-Government department working group in order to develop a set of Carbon Audit guidelines which provide a scientific approach towards auditing of greenhouse gases emission from buildings in Hong Kong. The "Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for buildings (Commercial, Residential or Institutional Purpose) in Hong Kong" was launched in July 2008. We are planning to conduct a Carbon Audit on the Tamar Development project upon completion in 2011 in order to support the Chief Executive's 2008-09 policy address. Meanwhile, we are preparing some of our engineering staff with Certified Carbon Auditor Professional qualifications so that they can offer technical support and advice to our client departments prior to their projects' handover.

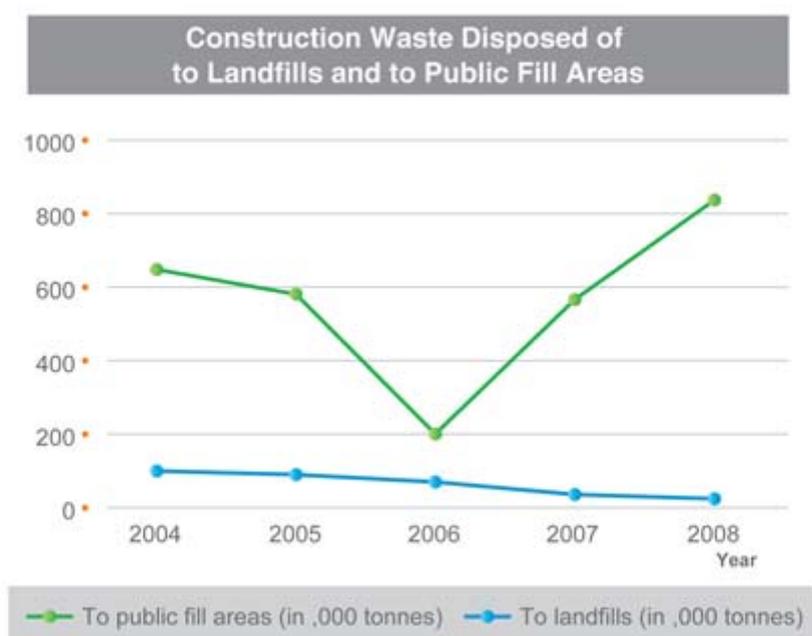
## Construction Waste Management

Waste management is a strategic part of our operations and a key issue with respect to green buildings and so we have planned and implemented strategies to minimise the generation of construction waste at sites and waste disposal at public fills and landfills, and to maximise the use of recycled materials.

With the data collected from past projects and guidance from experienced colleagues, our project teams were able to make reliable estimations on construction waste which were needed for Civil Engineering and Development Department, CEDD, to assess the intake capacities of present public fill reception facilities (PFRF).

In view of the shrinking capacities of the PFRFs managed by CEDD, we have increased our efforts to encourage contractors to further reduce at source both inert and non inert construction waste. Through comprehensive project planning, contractors are encouraged to practice cut-and-fill balance which would allow the reuse of inert construction waste at alternative sites across the region and this would directly alleviate the burden of PFRFs.

Over the past five years, the construction waste disposed of to landfills has been decreasing (overall 26,833 tonnes in 2008). However, due to the ongoing construction of some mega projects such as the Tamar Development project, the waste sent to public fill areas for reuse has increased (overall 839,097 tonnes in 2008).



## Indoor Air Quality

Indoor air quality (IAQ) is one of the environmentally friendly measures we are pursuing and we aim to achieve the "Excellent Class" of the IAQ Objectives in new projects where practicable. Upon completion of a project, we provide technical advice on the certification process and facilitate our clients to register their certificates with the IAQ Information Centre. We have set up a team of competent IAQ assessors and our IAQ Inspection Unit has, since September 2008, been accepted by Hong Kong Accreditation Service (HKAS) to be an Accredited Inspection Body under the Hong Kong Inspection Accreditation Scheme (HKIAS). Our in-house IAQ Certifying Inspection Body (IAQCIB) is capable of carrying out IAQ assessment and certification of government buildings upon request by our clients. In 2008, two existing buildings (APB Centre and part of the Queensway Government Offices) obtained Good Class IAQ Certificates.

Ref Link:

- The "Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for buildings (Commercial, Residential or Institutional Purpose) in Hong Kong".

## Heritage Conservation

We have an important role to play in conserving historic buildings with high cultural significance.

**R**evitalising Historic Buildings Through Partnership Scheme (RHBT Scheme) This scheme was introduced in February 2008 to promote adaptive re-use of government-owned historic buildings and so allows the public to participate in heritage conservation.

Since the announcement in the 2007-08 Policy Address of the new heritage conservation policy and a package of initiatives to promote heritage conservation, the Development Bureau has established the Commissioner for Heritage's Office and made good progress on several fronts. To support this initiative, we have set up a Heritage Group which undertakes the technical advisor's role to Commissioner for Heritage on the revitalisation projects and provides professional advice for the "Revitalising Historic Buildings Through Partnership Scheme" (RHBT Scheme).

### Heritage Impact Assessment

Since 1 January 2008, government projects which affect declared monuments, historical or heritage sites and buildings are required to conduct a Heritage Impact Assessment (HIA) to ensure that the conservation value of affected buildings will not be overlooked and to minimise any unavoidable impact by including suitable mitigation measures. It also allows for the public to be involved in the early stage of the project.

As a general principle of conservation, the condition of the building before any intervention including all methods and materials used during treatment must be carefully documented. Any intervention must be the minimum necessary and reversible if technically possible. The Lung Fu Shan Environmental Centre is a typical example. Before we renovated the former government quarters into the Environmental Education Centre, a detailed assessment of the condition of the building was conducted. Alteration and fitting out works, building services installations, external restoration work, signage and drainage work were carefully carried out and these improvement works are illustrated below:



Before renovation - West Point Bungalow Government Quarter



After renovation - Lung Fu Shan Environmental Education Centre

### Case Study: Yau Ma Tei Theatre & Red Brick Building

In his 2007-08 Policy Address, the Chief Executive announced that the Government has decided to convert the former Yau Ma Tai Theatre, (YMTT), into a Cantonese Opera Centre which would serve as a permanent performing venue for Cantonese Opera troupes.

The YMTT was completed in the late 1920's and was granted Grade II historic building status in December 1998. It will be converted into a public performance venue with a stage and seating for about 300. The nearby Red Brick Building, (RBB), was built in 1895 as an engineer's office for the former pumping station in Shanghai Street. It ceased operating in 1911 and is now the oldest surviving pumping station of the Water Supplies Department. The Antiquities Advisory Board granted it Grade I historic building status in June 2000. The RBB will now be converted to be a supporting facility to the YMTT with multi function rooms, an office and a souvenir shop.

In October 2008, we carried out a HIA for this site and adjacent historic buildings. Our objectives were to establish the cultural significance of YMTT and RBB, to formulate policies for the conservation of the site and buildings as a whole and to identify the possible impact and propose mitigation measures to alleviate any adverse effects.



Yau Ma Tei Theatre located at the junction of Waterloo Road and Reclamation Street, Kowloon.

## Revitalising Historic Buildings Through Partnership Scheme

The "Revitalising Historic Buildings Through Partnership Scheme" (RHBTP Scheme) started in February 2008. It aims to promote adaptive re-use of government-owned historic buildings and has, through various briefings and consultations, gained the support of NGOs and the LegCo Home Affairs Panel.

This Scheme provides the opportunity for direct public participation in heritage conservation whereby NGOs can submit their proposals for adaptive re-use of these government-owned historic buildings. We hope that creative approaches in preserving our historic buildings and expanding their usage can be adopted to transform them into unique cultural landmarks.

As a pilot programme, seven buildings have been offered under this Scheme, including the Old Tai Po Police Station (舊大埔警署), Lui Seng Chun (雷生春), Lai Chi Kok Hospital (荔枝角醫院), North Kowloon Magistracy (北九龍裁判法院), Old Tai O Police Station (舊大澳警署), Fong Yuen Study Hall (芳園書室) and Mei Ho House (美荷樓).

## Economic Conditions

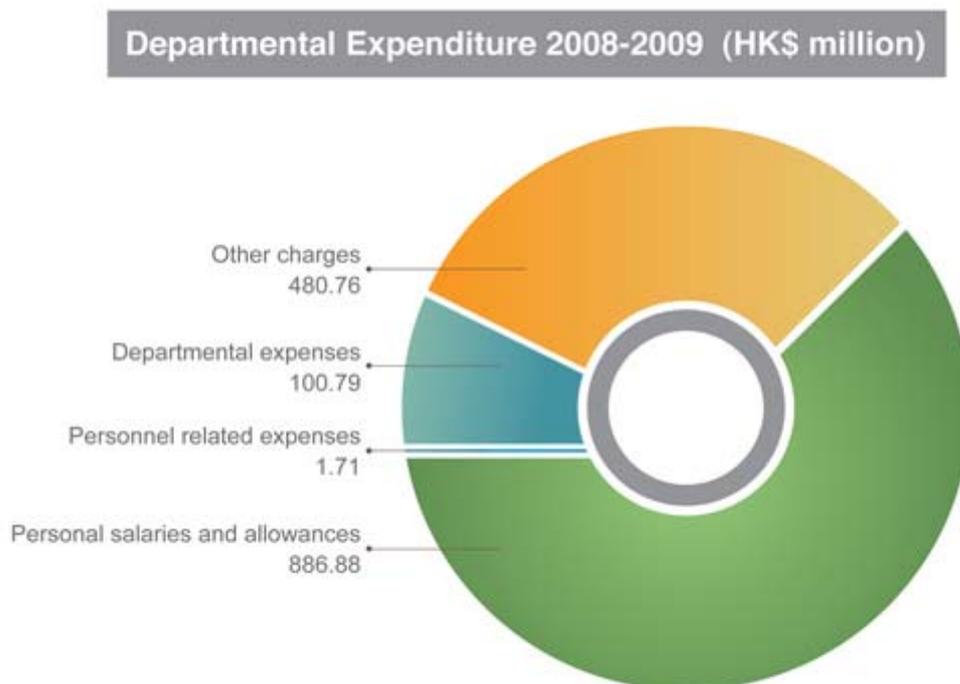
We manage the Capital Works Reserve Fund for facilities development and upkeep, and consultancy contracts, and aim to maximise the value of our buildings and the utilisation of our resources. We use our departmental funds for internal personnel related expenses. The Legislative Council, LegCo, is the statutory body for approving, monitoring and reviewing all public funds including our departmental funds.

During 2008, we worked on 37 new projects. With the dramatic increase in the cost of construction materials, such as cement and reinforcing bars, the cost of projects under construction rose by more than 15%. As a result, we had to apply for additional funding for some of the underestimated projects. Learning from this experience, we will endeavour to take more account of the variables in our future project planning.

In 2008, both global and local economic conditions behaved like a roller-coaster and in October that year, following a period of inflation, the worldwide financial crisis hit Hong Kong. In order to support the construction industry, we proactively supported government policy in the creation of construction related job opportunities through speeding up project commencement time. This was done in two ways; one was by shortening the frequency of planned maintenance and the other one was streamlining the consultancy screening process for simple projects. The result is an approximate 10% increase in the number of projects underway.

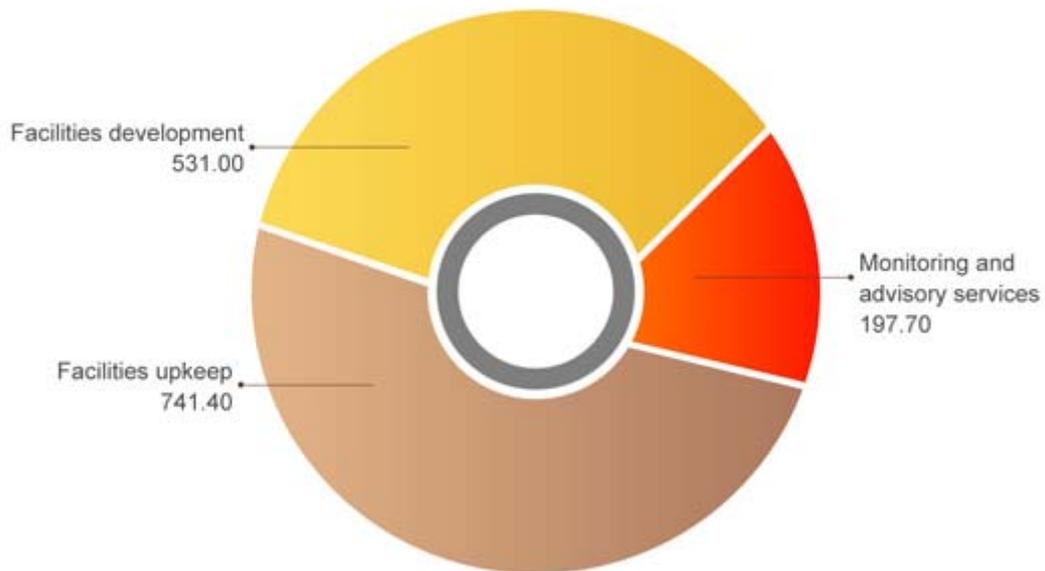
As a result, our overall expenditure in fiscal year 2008-09 was 5% higher than fiscal year 2007-08 as outlined in the summary breakdown below. This information is drawn from the Controlling Officer's Report of the 2008-09 Estimates of the Government of the HKSAR. Further information is available in [www.budget.gov.hk](http://www.budget.gov.hk).

Since we only develop public buildings and facilities, we have not generated any direct economic value which can be quantified.



*Remarks: Other charges refer to the maintenance of government buildings.*

**Financial Provision by Programmes 2008-2009 (HK\$ million)**



**\$789.3 million**

This sum was invested in our green building features and greening works as well as in environmental building research studies.

Ref Link:

- The Legislative Council, LegCo
- Controlling Officer's Report of the 2008-09 Estimates of the Government of the HKSAR

## Recognitions and Awards

As we have focused on greener and more sustainable buildings, a number of our projects have gained recognitions both locally and within the region.

### The Hong Kong Institute of Landscape Architects (HKILA) Design Award 2008:

This annual Award is organised by HKILA. Two of our completed projects received commendation.



#### **Silver Medal - Stanley Waterfront Improvement Project**

Quote from the Juror's: "The design has attentively coped with the difficult site constraints and site complexity."



#### **Award of Merit - Tuen Mun Children & Juvenile Home**

### Best Landscape Award 2008

This award is organised by Leisure and Cultural Services Department (LCSD) in collaboration with other government departments and professional organisations. It is aimed at promoting excellence in greening of public projects by outstanding landscape design and horticultural maintenance. This year, our Tuen Mun Children & Juvenile Home was also awarded the Merit Prize under Building Category - Greening of Buildings, Class 9: Soft Landscape Design, Non-residential.

### 2nd Green Building Award

This award is organised by the Professional Green Building Council (PGBC) and two of our completed buildings were acknowledged.

**Grand Award (New Construction Category) - Stanley Municipal Services Building (Stanley Complex)**



**Finalist (New Construction Category) - Radiotherapy Centre and Accident & Emergency Department at Princess Margaret Hospital**



### Building Environmental Assessment Method (BEAM) Assessment

This assessment is conducted by The BEAM Society. It is aimed at promoting green building along the life cycle of a building, i.e. planning, design, construction, commissioning, operation and management of buildings. In 2008, the following three completed projects successfully completed BEAM assessment:

- Radiotherapy Centre and Accident & Emergency Department, Princess Margaret Hospital (Platinum)
- Penny's Bay Fire Station, Ambulance Depot and Police Post Complex (Platinum)
- Tsun Wen Road/Leung Shun Street Rehabilitation Complex, Tuen Mun (Gold)

Eight more projects, including Tamar Development project are still under assessment.

Hong Kong Awards for Environmental Excellence 2008, HKAEE

HKAEE began in 2008 and aims to encourage businesses and organisations to adopt green management and presents them with an opportunity to benchmark and recognise their commitment to environmental protection.

Our staff's green commitment was awarded with the Certificate of Merit in the Sectoral Awards under Public Sector in the HKAEE 2008.

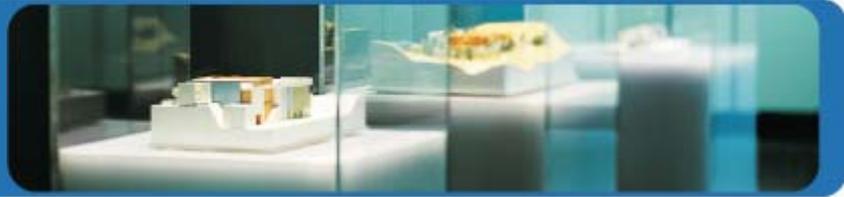


In the Construction Industry sector, two of our contractors were awarded with Certificates of Merit for the design and construction of the new Customs Headquarters Building (Shui On Construction Co Ltd) and the Redevelopment of Lo Wu Correctional Institution (Yau Lee Construction Co Ltd).

Ref Link:

- The Hong Kong Institute of Landscape Architects (HKILA) Design Award 2008
- Best Landscape Award 2008
- 2<sup>nd</sup> Green Building Award
- Building Environmental Assessment Method (BEAM) Assessment
- Hong Kong Awards for Environmental Excellence 2008, HKAEE

## Our Works



## Project Quality

We endeavour to provide quality public facilities in a sustainable manner as a way of focusing on greener buildings. We integrate environmental protection and health & safety measures into all stages of our operations and project development, from planning, design, procurement and construction to maintenance and demolition or reuse. By integrating these sustainability principles into our strategy and management approach, we maintain high standards of work and play a key role in cultivating a sustainable built environment.

In assessing the quality of our work, we continue to engage our stakeholders, particularly our clients, through a number of ways to collect their valuable feedback.

### Client Satisfaction Survey

**80.7%**

**In our annual Client Satisfaction Survey, the Overall Satisfaction Index achieved in 2008 is 80.7%, which is the same as that achieved in 2007.**

We believe that our clients' comments on the quality of our projects are essential to help us enhance our performance and green building standards. Through the quarterly Client Satisfaction Surveys (CSS), we collect feedback on a number of issues including the greening of internal and external environment, energy conservation measures as well as the sustainable use of building materials and recycled products.

In 2008, we surveyed 32 projects and the Overall Satisfaction Index achieved was 80.7% which was the same as that achieved in 2007. However, the percentage of 'Totally Satisfied and Very Satisfied' rating dropped from 74% in 2007 to 68.3% in 2008.

### Post Occupancy Evaluation

As part of our commitment to pursue clients' satisfaction and address their concerns, we have adopted a Post Occupancy Evaluation approach, POE, on selected recently completed buildings. The exercise reviews the actual building performance and concentrates on the key evaluation issues of operational performance monitoring, handover issues, energy review as well as an evaluation of new technologies. This is to ensure that the building's facilities are functioning according to the original design intent and fulfil the clients' needs in terms of functional requirements and performance.

In December 2008, we began a consultancy review to enhance the scope of our POE so as to include architectural as well as building services elements, and we will report more on this exercise in our next report.



POE Team checking the differential pressure condition of isolation rooms and anterooms during site walk



POE site walk to check the operation of condensing hot water gas boilers at New Infectious Disease Block, Princess Margaret Hospital

## Response to Stakeholders' Concerns

A good partnership with our stakeholders is essential for achieving long-term sustainability. To this end, we encourage two-way communication, cooperation and experience sharing and welcome comments and enquiries from stakeholders on our performance and quality of works.

We have a complaint and enquiry handling system in place to register stakeholders' enquiries. In 2008, 403 complaints and 20,343 enquiries were received. The enquiries ranged from landscaping and environmental issues to architectural and technical issues. In order to track our follow-up actions to ensure that their concerns are adequately responded to in a timely manner, we have developed a departmental quality objective and target for this. All enquiries or complaints should be replied to within 10 days, except enquiries/ complaints from Integrated Call Centre, (ICC), related to environmental hygiene which are to be replied to within three days. In 2008, we attained 100% achievement for this target.

### Comment from our client:

"We appreciate the barrier free accessibility design and environmental friendly design for our public users. As a continuous improvement, we would be happy to see that ArchSD continues its momentum to enhance the diversity of parks and facilities with a fusion with the original environment."

**Mr Gary Lau**  
**Senior Executive Officer (Planning)**  
**Leisure and Cultural Services Department**

### Our response:

Over the years, we have enhanced the design of our parks and facilities so that they blend in better within their individual environments. We will continue our effort and will work closely with our client at the project design stage in order to build facilities that are environmentally sustainable, user-friendly and relate well to their particular locations.

**ArchSD**

## Health and Safety

**T**o raise the awareness of construction site safety, we have implemented a wide range of schemes to motivate our contractors and staff to build a safe and pleasant construction site environment, such as Construction Wit posters, a new Operational Instruction No. 4/2008 for enhancement measures on site safety, workshops and training courses.

We recognise our role in driving safety accountability and culture in the construction industry and so we periodically review our site safety management strategy and guidelines to ensure that preventive measures are reinforced in order to minimise any injuries.

In order to keep up the momentum of improving site safety, we have a Departmental Safety and Environmental Advisory Unit (DSEAU) which is tasked to give safety advice to project team members and contractors, carry out regular site independent checking and attend site safety and environmental management committee meetings.



Site safety promotion by Contractors



Site inspection by top management



Site safety inspection for lifting operations



Electrical Safety Inspection

The DSEAU helps project teams to monitor the site safety performance of our contractors as well as the performance of their own registered safety officers in order to maintain their overall competence during the contract period. In addition, we conduct in-house seminars and collaborate with Labour Department to arrange regular tailor-made safety training seminars and courses for our site supervisory staff and contractors. These focus on the latest legislations, safety knowledge and lessons learnt from previous incidents and accidents. We aim to refresh their site safety awareness on all aspects of high-risk site activities such as working at height and lifting operations.

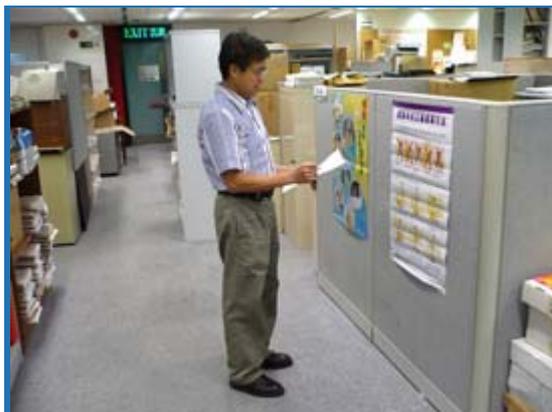


Safety Seminar for consultants and contractors



Site Safety and Environmental Management Committee Meeting

Since 2006, we have implemented the OHSAS 18001 occupational health and safety (OHS) management system which serves as the basis for managing the health and safety aspects of our staff's daily operations. Regular management committee meetings are arranged with top management and frontline staff to maintain close communication and feedback. Periodic safety walks are also conducted by assigned competent persons to ensure compliance of the OHS legislative requirements.



OHS safety walk

In July 2008, a new Operational Instruction No.4/2008 'Enhancement Measures on Site Safety' was issued and this sets out objectives and procedures of operating an early warning system in the department. With this initiative in place, we have more confidence to monitor safety performance and proactively enhance site safety for all our contractors.

We have launched a staff motivation scheme to design safety promotional posters of "Construction Wit" for sharing good site practice. Thirty Construction Wit posters were published in 2008 of which ten were selected as winners of the poster design awards. All of them are well recognised by the market industry. We have uploaded the posters onto the site safety corner in both our intranet and website and they have also been displayed in prominent places on our construction sites.

**Comment from a Statutory Safety Body:**

"Throughout the years, ArchSD demonstrates strong commitment in sustainable development and has conducted good sustainability activities. Safety and health should also be one of the key focus areas. ArchSD could consider to enrich its safety section and share with the industry its good safety practices."

**Mr TANG Wah-shing**  
Executive Director  
Occupational Safety & Health Council

**Our response:**

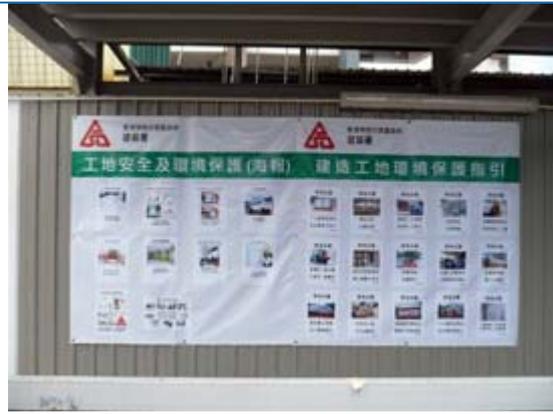
In response to this recommendation, we have enriched the health and safety section in this year's Sustainability Report by discussing the various precautionary and control measures on site safety. In addition, different safety awareness programmes, campaigns and seminars have been incorporated to show how our business partners can work with us towards safer practices.

ArchSD

<p><b>動力操作升降工作台</b> (Power-operated Elevating Work Platform)</p>  <p><b>善用活動工作台 工友安心又自在</b></p> <p>Construction Wit Poster - Power-operated Elevating Work Platform</p>	<p><b>臨時升降機槽圍欄</b> Temporary Lift Shaft Enclosure</p>  <p><b>升降機槽有圍欄 減少工人意外生</b></p> <p>Construction Wit Poster - Temporary Lift Shaft Enclosure</p>
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Construction Wit posters displayed on site (1)



Construction Wit posters displayed on site (2)

## Promotion of Crane Safety

We believe in the saying that 'prevention is better than cure' and so we put in place resources to enhance safety awareness among our staff and contractors. In 2008, top priority was given to the promotion of crane safety. This is because it affects not only the safety on construction sites but also the well-being and safety of the general public. As such, we organised a series of crane safety training workshops and courses and experience sharing exercises. These provided practical information on lifting planning, technical requirements of cranes, statutory requirements and best practices and were illustrated with appropriate case studies from our sites.



Crane Safety Training Workshop



Experience Sharing session for Crane Safety

We have published a total of six Construction Wit posters concerning crane safety. Two of them are illustrated below.

<p>安全使用流動式起重機 (分隔旋轉區域) <b>Mobile Crane Safety</b> (Demarcating Slewing Zone)</p>  <p>吊運路線要欄擋 危機四伏勿亂闖 監控屏幕有顯示 機械移動才開始</p> <p>Construction Wit Poster - Setting up Demarcation Slewing Zone for lifting operation of Crane</p>	<p>安全使用流動式起重機 (安全負荷自動顯示器) <b>Mobile Crane Safety</b> (Automatic Safe Load Indicator)</p>  <p>趨近負荷 發出訊號 超逾負荷 發出警號 切勿混淆 兩種訊號</p> <p>Construction Wit Poster - Automatic Safe Load Indicator</p>
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### Additional Initiatives relating to Site Safety

We have also developed a number of health and safety measures which are specifically relevant to certain situations.

- Hard Paving Construction - precast concrete paving shall be provided by the contractor for the temporary main haul road and site storage areas during the construction period in order to mitigate dust suspension.



Hard paving construction with demarcation strip for site personnel



Hard paving construction for site main haul road

- Safety Measures for Working in Hot Weather - guidelines were issued to conduct risk assessment for works carried out under hot weather conditions.
- Dog Bite Safety - a guidance note was issued to advise the precautionary measures to avoid being attacked by a dog while at work.
- Prevention of Site Violence - practical guidelines have been set up on preventing incident of site violence and resolving conflict.
- Mosquito Control - Two new term contractors were engaged to specifically carry out slope maintenance works in which anti-mosquito clearance was one of the major tasks.

## Architectural Services Department - Sustainability Report 2009 - Our Works

To enhance our site safety mechanism, it is crucial for us to engage our partners so as to assert our position of providing a safe working environment for our site workers.

A speech was delivered by our former Director, Mr. Yue Chi Hang, in a Safety Conference organised by one of the contractors. The theme was "Duty of Care - Yourself and Your Community". Mr Yue affirmed our commitment towards accident-free construction works through ever strengthening site safety management. By providing tailor-made safety training and conducting regular inspections, we aim to do everything possible to safeguard our frontline workers from injury.



A presentation was delivered by our former Director, Mr Yue Chi Hang

## Supply Chain Management

Responsible procurement of services and products is considered an important element in the development of greener buildings. In addition to our own efforts, we also encourage our consultants, suppliers and contractors to strive towards sustainability. We have also established a mechanism, during the tender assessment stage, of selecting responsible contractors. This involves considering their past performance on environmental and site safety aspects.

The Architectural and Associated Consultants Selection Board (AACSB) Handbook provides guidance on the selection, appointment and administration of architectural and associated consultants. It consists of six categories, namely Architectural, Building Services, Building Surveying, Landscape Architectural, Quantity Surveying and Structural Engineering.

Fairness and equal opportunities are also considered during procurement. We have no preference between local contractors and suppliers and those from overseas as we treat all equally.

### Contractor Awards

Every year, we recognise the outstanding performance of our contractors and present them the awards to appreciate their effort of enhancing environmental, health and safety aspects of their work. The awards include the Considerate Contractors Site Award Scheme by Development Bureau and our ArchSD Green Contractor Award Scheme. In 2008, eight of our contractors won twelve awards in these two Award Schemes.

### Considerate Contractors Site Award Scheme 2008

This award comprises of the Considerate Contractor Site Award (CCSA) and the Outstanding Environmental Management & Performance Award (OEMPA). The award scheme is to encourage contractors to work in a responsible and considerate manner at all times by providing a safe and healthy environment on the construction site as well as on the periphery of the site.



Gold OEMPA (New Works) and Silver CCSA (New Works) for Contract No. SS P320 - Design and Construction of the Redevelopment of Lo Wu Correctional Institution  
Winner: Yau Lee Construction Co. Ltd.



Silver OEMPA (New Works) and Bronze CCSA (New Works) for Contract No. SS P319 - Design and Construction of Customs Headquarters Building at Tin Chiu Street, North Point  
Winner: Shui On Construction Co. Ltd.



Bronze OEMPA (New Works) and Merit CCSA (New Works) for Contract No. SS P314 - Design and Construction of an Indoor Recreation Centre, Community Hall cum Library in Area 17, Tung Chung  
Winner: Shui On Construction Co. Ltd.



Bronze OEMPA (New Works) and Merit CCSA (New Works) for Contract No. SS S308 - The Construction of a Primary School at Sham Tseng, Tsuen Wan  
Winner: Hung Wan Construction Co. Ltd.



Merit OEMPA (New Works) for Contract No. SS P321 - Design and Construction of the Central District Headquarters and Divisional Station of the Police at Chung Kong Road, Sheung Wan, Hong Kong  
Winner: Yau Lee Construction Co. Ltd.



Gold CCSA (RMAA Works) and Silver OEMPA (RMAA Works) for Contract No. TC R021 - Term Contract for Wan Chai (South) & Wan Chai (North)  
Winner: Wan Chung Construction Co. Ltd.



Merit CCSA (RMAA Works) for Contract No. TC R022 - Term Contract for Hong Kong Island Eastern and Outlying Islands (South)  
Winner: Cheung Hing Construction Co. Ltd.



Merit CCSA (RMAA Works) for Contract No. TC R051 - Term Contract for Tuen Mun and Yuen Long  
Winner: Sun Fook Kong Construction Ltd.

## Green Contractor Award Scheme

The annual Green Contractor Award Scheme aims at encouraging our contractors to pay more attention to the environmental aspects of their works in order to achieve higher standards and continual improvement in their environmental performance on sites. All projects that were under construction in 2008, including terms contracts with contract sums over HK\$21m, were eligible to participate in the competition. The contractors whose contracts had attained the highest scores in environmental performance were selected for the Award.



Gold Award Winner Shui On Construction Company Limited - Design and Construction of Indoor Recreation Centre, Community Hall cum Library in Area 17, Tung Chung & Design and Construction of Customs Headquarters Building at Tin Chiu Street, North Point, Hong Kong



Silver Award Winner Gammon - Hip Hing Joint Venture - Design and Construction of Tamar Development Project, Hong Kong



Silver Award Winner Hung Wan Construction Company Limited - Construction of Primary School in Sham Tseng, Tsuen Wan



Bronze Award Winner Paul Y. Construction Company Limited - Construction of Basement and Foundation for Tin Shui Wai Public Library cum Indoor Recreational Centre



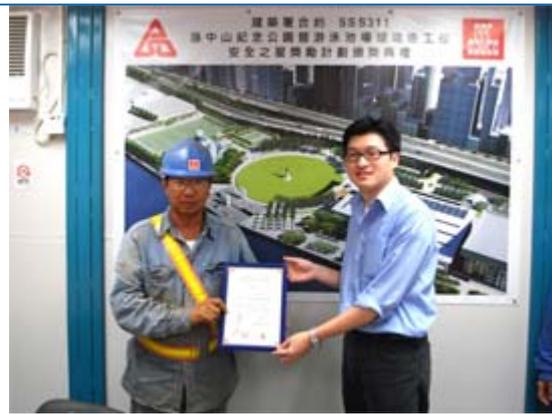
Term Contract Award Winner Wan Chung Construction Company Limited - Maintenance Term Contract for Wanchai (South) and Wanchai (North)

## Site Safety Model Worker Award Scheme

Since 1996, we have held the Site Safety Model Worker Award Scheme in order to promote the message of site safety directly to construction workers and to give positive encouragement on their awareness of site safety. An award certificate in addition to a HK\$1,000 cheque is presented to each selected worker. In 2008, 41% of our contracts participated in the scheme. This was an encouraging figure as it was higher than our departmental target of 24%.



Award for Site Safety Model Worker for Contract No. SS P319



Award for Site Safety Model Worker for Contract No. SS S311

## Excavation Permits

In 2008, a new initiative on strengthening the monitoring of excavation permits was begun. Excavation permit issues were discussed and reviewed during the monthly Senior Site Supervisory Staff (New Works) meeting. The Departmental Excavation Permit Administrator, in collaboration with the Excavation Permit Coordinators, Departmental Safety & Environmental Advisory Unit (DSEAU) and the relevant project team will carefully investigate those excavation works which have serious deficiencies related to site safety and environmental issues for continual improvement.

### Comment from a Building Contractor:

"It is our privilege to be engaged by ArchSD in various construction projects over the years. We are happy to see the latest movement of ArchSD to promote green buildings in Hong Kong and take the lead in driving projects in a sustainable way and that has provided invaluable opportunity for us to advance our construction standard."

**Mr Alex Fok  
Shui On Construction**

### Our response:

As the leader in providing community facilities, we will continue looking into cutting edge sustainable building technologies and work with our contractors to promote green buildings in Hong Kong.

**ArchSD**

Ref Link:

- Considerate Contractors Site Award Scheme
- Green Contractor Award Scheme

## Project Environmental Assessment

During the technical feasibility stage, a Preliminary Environmental Review (PER) will be carried out on all new projects that may have adverse environmental impacts. If a project is classified as a "designated project" under the Environmental Impact Assessment Ordinance (EIAO), an EIA is required. In 2008, four projects were required to conduct PER while two projects with significant environmental impacts were required to conduct EIA. They were:

- Re-provisioning of Wo Hop Shek Crematorium
- Construction of a Second Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road

The Boundary Fence construction project is located close to the Mai Po Nature Reserve and would have an impact on species of flora that have high conservation interest, as well as on the breeding ground of migratory wetland-dependent birds. As a result, appropriate mitigation measures were recommended in the EIA Report. The remaining projects were situated in developed areas and had no significant impact on the biodiversity.

## Research and Development

### **New Research and Development, R&D, initiatives in Connection with Sustainability Issues**

We carry out research studies on various topics in order to continually improve our performance. Some of our new R&D initiatives which are related to sustainability, greening and green procurement are as follows:

- Study the feasibility of using carbon-fibre reinforced polymer and epoxy grout in structural repair work
- Study of task lighting for offices to enhance energy efficiency
- Study of application of rain water recycling and grey water installation
- Study of the electronic asset management for facilities upkeep
- Study of the Vertical Greening and Preparation of Guidelines and Database Framework

## 2008 Projects



## Overview

Some of our notable projects of 2008 are as follows:

- Tamar Development Project - One of our ongoing mega-projects
- World Exposition 2010 Shanghai - Hong Kong Pavilion

### World Exposition 2010 Shanghai - Hong Kong Pavilion

The Hong Kong Pavilion is located at the southern side of the China Pavilion of the Shanghai World Expo venue. The Pavilion has the theme "Hong Kong - A City of Unlimited Potential" and contains a number of green building features.

### Stanley Waterfront Improvement Project

received the following award in the Hong Kong Institute of Architects Annual Award 2008: 'Special Architectural Award - Urban Design'

- Stanley Waterfront Improvement Project - HKIA Annual Awards 2008 - Urban Design [details](#)
- Morse Park Amphitheatre - Special Mention in ArchSD Annual Award 2008
- Lung Fu Shan Environmental Education Centre - One of our heritage conservation projects
- Ping Shan Tang Clan Gallery - HKIA Annual Awards 2008 - Special Architectural Award (Heritage) [details](#)
- Special School for Severely Mentally Handicapped Children in Area 32, Tin Shui Wai (Caritas Lok Kan School) - Special Mention in ArchSD Annual Award 2008 [details](#)

## Tamar Development Project

The Tamar Development Project covers the construction of the Central Government Complex, (CGC), the Legislative Council Complex as well as an open space, two covered pedestrian footbridges and other ancillary facilities. The Green Carpet of about two hectares in size will provide the public with a spacious and landscaped open space at the harbourfront for their enjoyment.

The Tamar Development Project is being built as a green and sustainable project. Architecturally, disposition of the buildings forms a major breezeway from the harbour to the inner city area. The design of the CGC Office Block as an "Open Door" with principal north-south orientation optimises the harness of daylight and inter-block shading against sunlight for indoor spaces; it also enhances visual permeability through the site and maintains good air ventilation in the area. In addition, a variety of green features and energy saving features have been adopted, including green roofs/sky gardens, photovoltaic panels, water features, vertical planting, sea water cooled chiller plants, motion/daylight sensor control for lighting, on-demand escalators, water tap with infra-red sensor, etc.



Tamar Development Project under construction

## World Exposition 2010 Shanghai - Hong Kong Pavilion

The Hong Kong Pavilion, themed "Hong Kong - A City of Unlimited Potential", is located to the south of the China Pavilion at the Shanghai World Expo venue. It is a free standing structure with a site area of 637 square meters and an exhibition area of about 800 square meters. One of the sustainable design features is the folded aluminium cladding. This is located in front of the glass façade in order to allow air to flow across the glass surface to cool the building down during the hot summer months of the exhibition period.



Day time view of Shanghai Expo - HK Pavilion



Early evening view of Shanghai Expo - HK Pavilion

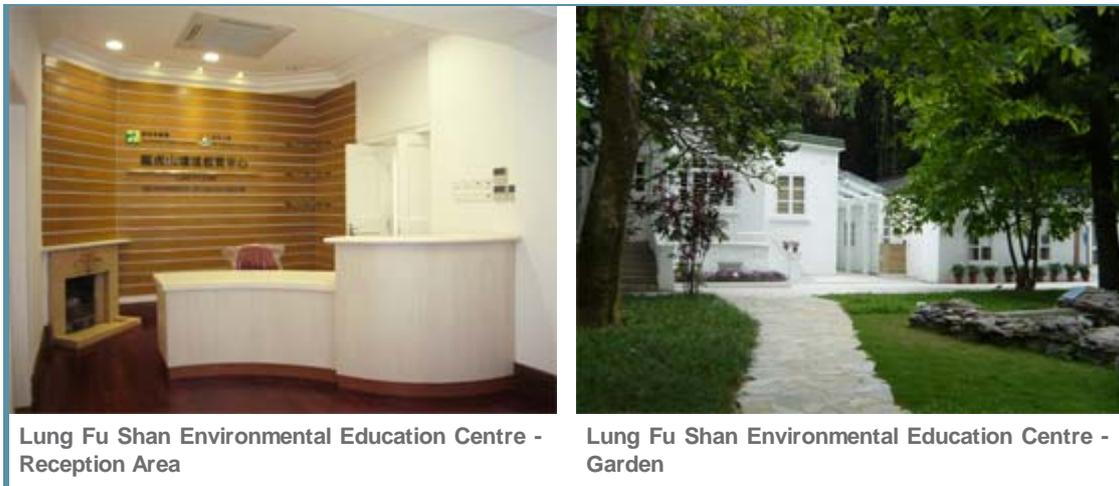
## Morse Park Amphitheatre

The improvement works to Morse Park Amphitheatre received a special mention in ArchSD Annual Award 2008. They were regarded as a nice piece of minor works which replaced the previous pavilion that had been the roof for the original Blake Pier. The building and roof structure though small in scale, have made use of an architectural language that best suited their purposes and have shown a sculptural quality that is both simple and appropriate.



## Lung Fu Shan Environmental Education Centre

Lung Fu Shan Environmental Education Centre was converted from a previous government quarter bungalow located in Sai Ying Pun. It is a successful example of a heritage conservation project as it not only provides a new function for a historic building, but also prevents additional construction waste from being generated by its demolition.



## Stanley Waterfront Improvement Project

Being one of the most popular visitor destinations on the south side of Hong Kong Island, Stanley offers a unique mix of attractions to shoppers and sightseers: bargain buys, informal restaurants, traditional temples, historic buildings, and spectacular views over the beaches of Tai Tam and Stanley Bay. To further enhance the attractiveness of this famous tourist destination, a new waterfront promenade has been created. Stanley Main Street has been widened and repaved, street lighting has been improved and new street furniture and planting have been added. New landscaping works have also beautified the areas surrounding the Shui Sin Temple and Pak Kan Uk. A new pier has been constructed and this is now covered with the roof from the original Blake Pier in Central. This roof was first dismantled in 1965 and became a pavilion in Morse Park, Kowloon before its latest move to Stanley Waterfront Promenade. The roof's unique style forms an appropriate complement to the colonial Murray House nearby.

This scheme was recognised by the Hong Kong Institute of Architects and awarded a 'Special Architectural Award - Urban Design' in Hong Kong Institute of Architects Annual Award 2008. The project introduces various new elements such as the Blake Pier roof, a boardwalk and marketplace that all blend in with the existing townscape, and rationalise the use of space within the existing street setting.



The new Blake Pier at Stanley Waterfront Promenade

## Ping Shan Tang Clan Gallery

The main building of the Old Ping Shan Police Station was built in Yuen Long in 1899 and is one of the few remaining pre-war police stations in the New Territories. It is a two-storey structure enclosed with an arched verandah and has recently been converted into the Visitors Centre of the Ping Shan Tang Clan Gallery cum Heritage Trail.

The Visitors Centre opened in April 2007 and displays valuable exhibits of the Tang Clan, one of the major clans in the New Territories that date back to the 12<sup>th</sup> century. There are a total of three galleries which comprise:

1. The Ping Shan Tang Clan Gallery: this gallery displays various relics belonging to members of the Tang Clan and introduce the Tang Clan's history, customs and cultural life. The exhibits included a bridal sedan chair used in traditional marriages, a phoenix coronet worn by a bride in the 1950s and an embroidered silk birthday hanging that is about 170 years old.
2. The Gallery of Ping Shan Heritage Trail: this gallery describes the various historic buildings and monuments which are linked along the heritage trail. This provides a convenient walking route and shows visitors the culture of the local people.
3. The Community Heritage Gallery: this gallery displays periodic and special themed exhibitions organised by schools and community organisations on the history and local culture of the New Territories.



Ping Shan Tang Clan Gallery located in Yuen Long



The Gallery of Ping Shan Heritage Trail



Ping Shan Tang Clan Gallery - External courtyard

## Caritas Lok Kan School

Caritas Lok Kan School is a special school for severely mentally handicapped children. It was founded in 1981 in Wanchai and was relocated to the current premises in Area 32, Tin Shui Wan in 2007. The special school has a site area of about 5,850 square meters. The concept of the school is to be the first of its kind purpose built facility in Hong Kong which aims to prepare severely handicapped children to cope with a normal life. It also encourages parents' participation with their children in daily school life so that they can learn how to take care of their children when, at the age of 18, they leave the school.

The school was awarded a "Special Architectural Award - Accessibility" by the Hong Kong Institute of Architects in 2008 for its special architectural planning and design to help disabled students to differentiate the concepts of home and school. Unlike other typical facilities in Hong Kong, the boarding section (the students' home) is located on the ground floor of the school complex for better management of the students and improvement of accessibility and safety. The ten classrooms and the boarding section in a two-storey block are separated from the 'students' home' by an architectural feature wall and the Central Courtyard.

The school provides various facilities including multi-purpose rooms and rooms with special audio-visual facilities that help to stimulate the learning interest of the disabled children.



Caritas Lok Kan School located in Tin Shui Wai



Caritas Lok Kan School - Interior view



Caritas Lok Kan School - Exterior view



Caritas Lok Kan School - Central Courtyard



Caritas Lok Kan School - Circulation ramp

## Industry Partners



## Approach

Active engagement with our industry partners is necessary to enhance green building design and the overall standards of the local construction sector. Our proactive approach is evident in our involvement with key stakeholders including relevant committees and professional bodies. In 2008, staff members from different divisions and ranks participated in 187 external committees.

**T**o foster our link with the contractors, we have regular meetings with the Hong Kong Construction Association (HKCA) and the Hong Kong Federation of Electrical and Mechanical Contractors Limited (HKFEMC).

In addition to engaging industry partners on construction-related issues, we are also involved with local and international sustainability initiatives, including:

[Clean Air Charter in Hong Kong](#)  
[Volunteer Movement in Hong Kong](#)  
[Global Reporting Initiative in The Netherlands](#)

We also maintain memberships with the following professional organisations in order to keep abreast of the latest development and initiatives in the building industry:

- The Hong Kong Institute of Architects - Hong Kong based
- The Hong Kong Institution of Engineers - Hong Kong based
- The Hong Kong Institute of Surveyors - Hong Kong based
- The Institution of Structural Engineers - United Kingdom based
- The Chartered Institution of Building Services Engineers - United Kingdom based
- Royal Institution of Chartered Surveyors - United Kingdom based
- Chartered Institute of Architectural Technologists - United Kingdom based
- American Society of Heating, Refrigerating and Air-Conditioning Engineers - The United States based
- International Council for Research and Innovation in Building and Construction - The Netherlands based
- Professional Green Building Council - Hong Kong based
- Green Building Council - Hong Kong based (to be established)

To raise the awareness of the public to green building as well as to guide the development of industry standards and best practices in green buildings, the Hong Kong Green Building Council will be established in late 2009. It will consist of representatives of the construction industry and professional sectors and will take the lead in improving the existing voluntary green building labelling scheme and the drive for new initiatives on sustainability.

**Comment from a professional organisation:**

"As the leader in construction industry, ArchSD has used its power to significantly influence the sustainable performance of the supply chain. We believe that ArchSD can consider to arouse public awareness on sustainable construction through building rating system, as well as using business cases to demonstrate the benefit of incorporating green elements into buildings."

**Ms. Anna Kwong Sum-yee**  
**President**  
**The Hong Kong Institute of Architects**

**Our response:**

ArchSD has been benchmarking selected new government building projects with Building Environmental Assessment Method (BEAM) or the Leadership in Energy and Environmental Design Green Building Rating System (LEED) and will continue our effort in the upcoming projects. To better arouse public awareness on sustainable building construction, we will consider HKIA's recommendation and incorporate it in our future reporting on government building projects with more information on the achievement in environmental and energy efficiency performance.

**ArchSD**

Ref Link:

- Clean Air Charter in Hong Kong
- Volunteer Movement in Hong Kong
- Global Reporting Initiative in The Netherlands
- The Hong Kong Institute of Architects
- The Hong Kong Institution of Engineers
- The Hong Kong Institute of Surveyors
- The 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
- Professional Green Building Council

## Experience Sharing

The exchange of information and experience with industry partners is essential for our understanding of market trends and constraints and enables us to set industry best practices and guidelines with respect to greener buildings.

To foster our links with contractors, we have regular meeting with the Hong Kong Construction Association (HKCA) and the Hong Kong Federation of Electrical and Mechanical Contractors Limited (HKFEMC), and convene additional meetings as necessary.

**56 Public Events**

We have participated in 56 public events sharing our experiences and projects with the industry, our business partners, the public and other interest groups.

We have also actively participated in publicity events in order to share our experiences with the industry, our business partners, the public and other interest groups. In return, we use these opportunities to understand better their expectations and concerns and be able to identify areas for improvement.

Our publicity events included:

- Exhibition of Hong Kong Wetland Park and EMSD Headquarters projects at Macao International Environmental Cooperation Forum & Exhibition
- HKIA Awards Ceremony
- The opening ceremony of Tuen Mun Hospital Rehabilitation Block
- Inputs for Hong Kong Report and exhibition materials for World Sustainable Building Conference 2008, Melbourne



Our former Director answering questions during a Safety Conference with theme "Duty of Care - Yourself and Your Community"



Our former Director meeting with the Institute of Occupational Safety and Health (IOSH)  
Photograph by: IOSH (Hong Kong Branch)

## Building Services Tender Price Index

In 1990, we initiated Building Services Tender Price Index (BSTPI) as a complementary index to Building Tender Price Index in order to provide reliable information on contemporary tender price trends which help rationalise our evaluation during the process of selecting a tender.

To improve the benchmark against the building services installations in recently tendered projects, a Task Force, which was set up in January 2008, has completed the review and revision of the methodology as well as the Base Schedule of items and rates which will be adopted for the compilation of BSTPI starting in the first quarter of 2009.

## Employees



## Staff Relations

Maintaining harmonious staff relations is not only a means of raising staff morale, which in turn enhances overall productivity, but also a means of building up a sense of belonging which helps to retain talented staff.

Two-way communication between our staff and management is strongly encouraged. We collect staff members' ideas and opinions mainly through various formal communication channels, namely the Departmental Consultative Committee, (DCC) and the Joint Staff Consultation Group, (JSCG).

With the support of the Civil Service Bureau, we have a dedicated Staff Relations Unit that coordinates staff relations' matters, staff welfare and motivation schemes.

### Annual Staff Motivation Scheme

has been in operation since 1993. The scheme aims at fostering a sense of belonging among staff and to achieve greater efficiency and productivity. In 2008, the theme of the scheme was "Collective Memory of ArchSD".

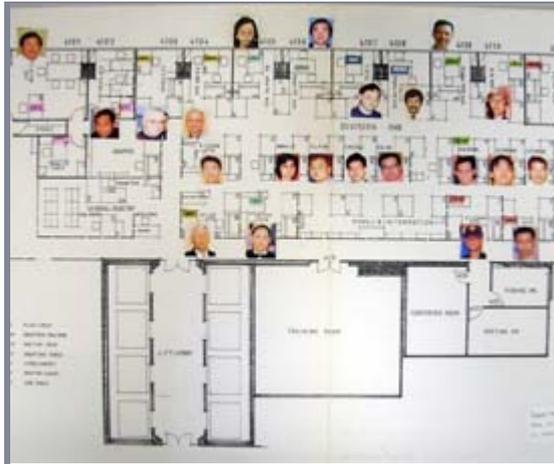
Since 1993, we have organised the annual Staff Motivation Scheme to foster a sense of belonging among staff and to achieve greater efficiency and productivity. In 2008/09, there were a total of 9 competitions/events in this scheme which attracted a total of 281 entries. One competition was on the "Collective Memory of ArchSD" which aimed to foster a sense of belonging and memory among staff. Some winning entries are illustrated below:



Winner: Happy moments



Winner: Happy moments



1<sup>st</sup> Runner-up: Hand-made floor plan of 41/F Queensway Government Offices in 1998



2<sup>nd</sup> Runner-up: A collection of poetic artifacts from the Kowloon Walled City Park project



Staff Motivation Scheme 2008 award presentation: Collective Memory of ArchSD

As an employee's basic right, our staff members have freedom of association and the freedom to form and join trade unions. We fully support them to join any employee-based associations. There are a total of nine staff unions within the department and about 23% of our staff are members of the ArchSD Staff Association. Activities organised by the Staff Association are open to all staff, their families as well as to retired colleagues.

**Comment from a member of staff:**

"Good staff relations are like a catalyst in delivering quality works and I am happy to see our organisation is moving ahead to initiate dialogue which should provide invaluable suggestions on our roadmap towards greener building."

**Mr Chris Liu**  
**Senior Architect of ArchSD**  
**representative of Staff Association**

**Our response:**

We are pleased to create an environment of open dialogue between staff and management. Staff insight and suggestions are crucial for our continuous improvement both from an organisational perspective as well as a project delivery perspective. We will continue to listen to our staff and to foster a harmonious work environment.

**ArchSD**

## Staff Development

One of our main concerns is to enhance our staff competency and performance in order to deliver professional services to our stakeholders.

**152 Training Courses**

were organised for our staff to enhance their necessary skills.

As part of our Integrated Management System, we commit to provide our staff with on-going training opportunities that will equip them with the necessary skills, knowledge and mindset that they need. In 2008, a total of 152 training courses were organised some of which are listed below:

- IMS Internal Auditor Training
- Seminar on Intelligent Green Building
- Workshop on Heritage and Conservation
- Basic Accident Prevention
- Occupational Safety and Health Management
- Workshop on Effective Complaint Handling
- Team Building
- Workshops on Corruption Prevention and Performance Management for Site Supervisory Staff
- National Studies Training Programme

In 2008, the total number of training hours was 24,148 hours and the average training time per employee was about 13 hours.

Training Type	No. of trainees	No. of training hours
Leadership & Management	9	644
Professional & Vocational	3,079	19,832.5
Career Development	404	3,671.5



Half-day workshop on performance management for site supervisory staff.



National studies training programme at the Sun Yat-sen University organised by the Liaison Office of the Central People's Government in the Hong Kong SAR

## Community



We believe that actively supporting and liaising with the community in which we operate are necessary to secure the success of sustainable development.

## Our Approach to Supporting the Community

Sichuan was struck by an 8-magnitude earthquake on May 12, 2008. Nearly 70,000 people were killed, over 4.6 million were made homeless and there were huge economic losses. Subscribing to the concept of "When one place suffers misfortune, aid come from all sides", the HKSAR Government actively participated in the post-quake reconstruction work and four of our staff members were seconded to DEVB to assist in the reconstruction work.

## Community Services

In 2008, our ArchSD Volunteer Service Team served the community for over 2,000 hours through participating in 53 events. For this, they received a **Gold Award for Volunteer Service** by the Volunteer Movement.

### Volunteering

Our Volunteer Service Team continues to provide devoted service to the needy by paying regular visits to elderly homes and rehabilitation centres, teaching Tai-chi to the underprivileged, and producing beautiful handmade gifts and handicrafts for the elderly. Our Volunteer Service Team has participated in an increasing number of projects over the years.



One of the notable projects was the "Redecoration of Homes for the Elderly". Our volunteers redecorated and carried out maintenance works on about forty apartments for the elderly in Eastern District.



Mr. K.P. Suen was one of the ten Outstanding Awardees in the Second Hong Kong Volunteer Award presented by the Agency for Volunteer Service



In December 2008, we received a Gold Award for Volunteer Service presented by the Volunteer Movement for serving over 2,000 manhours.

## Donation

**HK\$355,755**

In response to the Sichuan earthquake reconstruction work, our Staff Association promptly organised a fundraising campaign to show our care for our fellow countrymen. A total of HK\$355,755 was raised within a few days and the funds were then donated to several charities.

In addition to our technical support on the Sichuan reconstruction work, the Staff Association organised a fundraising campaign to show our care for our fellow countrymen. We raised a total of HK\$355,755 within just a few days and the funds were then donated to several charities.

During the year, we also joined various fund-raising activities for the Community Chest such as the Community Chest Green Day and Dress Special Day.



Chairman of the Staff Association and Departmental Secretary presented the cheque to Red Cross for the Sichuan Earthquake Fundraising Campaign.



In 2008/09, we received a Certificate of Appreciation from the Community Chest for our support to the Corporate & Employee Contribution Programme.

## Contractors Community Engagement

In line with our own community involvement programmes, some of our contractors took their own initiatives to show their care for the community, particularly to those who may be disturbed during their construction works. Their efforts were well received and proved to be a success in creating an amicable relationship with the local community.

One of the best examples of community engagement is that carried out by our contractor, Shui On Construction Co Ltd. For the Customs Headquarters building project, they have established a task force to reach out to the neighbouring residents and primary schools in order to listen to their concerns and to foster long term relationships. For the students, they have organised eco-tours and environmental talks, while on site they have erected interactive hoarding boards with news and updates and hung banners with environmental messages in order to raise the overall awareness of the community.



Eco learning tour hoarding display



Environmental talk to primary students

**Moving  
Forward**



## Green Performance Framework

### **Joint Technical Circular No.5/2009 - Green Government Buildings**

developed by Development Bureau and Environment Bureau, is aimed at promoting green building and improving green building design by using a comprehensive target-based green performance framework. All our existing government buildings and new construction projects will attain these assessment standards after April 2009.

As we are an environmentally responsible works agent for the development and maintenance of government facilities, we commit to take the lead in promoting green buildings in Hong Kong. In 2008, we contributed our green building experience and supported the Development Bureau and Environment Bureau to develop the Joint Technical Circular No.5/2009 - Green Government Buildings whose aim is to promote green building and improve green building design via a target-based green performance framework. This Circular becomes effective in April 2009 and covers all key aspects, including green building rating, energy saving, waste and water management and indoor air quality etc. For example, all new government buildings with a construction floor area of more than 10,000m<sup>2</sup> should aim to obtain the second highest grade or above under an internationally or locally recognised building environmental assessment system such as LEED or BEAM.

Subsequent to this latest Joint Technical Circular, all existing government buildings and new construction projects will attain the required standards. These will include the Tamar Development and Kai Tak Cruise Terminal projects.

## Stakeholder Engagement

**W**e will build on our recent stakeholder engagement plan in order to foster and consolidate communication with our different stakeholders.

Engaging with stakeholders is a key to understanding their expectations of our services as well as driving continuous improvement on our sustainability issues, such as green building design. In order to foster effective communications, we will establish a stakeholder engagement plan to proactively consolidate and react to their different concerns. This plan will be carried out in stages. As a first step, we have begun by carrying out face-to-face interviews with a sample of our key stakeholder groups. Moving on to the second stage, we will conduct face-to-face interviews with more stakeholder groups including employees, consultants, contractors, our clients and local communities. At some future point, we plan to form a focus group that will provide a platform for stakeholders to express their views. By analysing these views and comments, we will be able to identify ways to improve our operational efficiency as well as our overall reporting mechanism.

## Business Plan

The successful implementation of our first Departmental Business Plan prepared in the '90s has provided us a solid base on which we can progress further and better meet the needs of the Government and the public at large, better serve and care for the community and to be better equipped to embrace challenges in the ever-changing macro-environments. In looking forward, we believe that the time is right for us to review the grounds that we have covered and lessons that we have learnt, to devise our new business plan and goal by preparing our second Departmental Business Plan to help shape and build a better Hong Kong. We will provide more information on the new business plan in our next Report.


 Data  
Summary

## Performance Data

### Environmental Performance

#### *Resources Usage - Energy*

	Units	2008	2007	2006	2005	2004
Electricity consumed (QGO and APB Centre) [1]	kWh/m <sup>2</sup>	244	245	265.2	277.5	277.5
CO <sub>2</sub> emission equivalent to electricity consumption (QGO and APB Centre) [2]	Tonnes CO <sub>2</sub> e	4,071	4,089	4,644	4,858	5,130
Building with OTTV less than 23W/m <sup>2</sup>	% & no. of total no. of projects	100% & 24 of 24	100% & 15 of 15	100% & 7 of 7	100% & 11 of 11	100% & 10 of 10
Building with OTTV less than 18W/m <sup>2</sup>	% & no. of total no. of projects	75% & 18 of 24	66.7% & 10 of 15	85.7% & 6 of 7	63.6% & 7 of 11	70% & 7 of 10
Energy saved due to energy efficient installations [3]	GWh	1.7	4.9	39	84	119
Equivalent monetary savings	HK\$ million	1.7	4.9	39	84	119
Avoided CO <sub>2</sub> emissions [4]	in ,000 Tonnes CO <sub>2</sub> e	1.19 [5]	3.43	27.3	58.8	83.3

[1] Offices in QGO and APB Centre represent 94% of total ArchSD office space.

[2] Territory wide default GHG emission factors were used based on the Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for buildings (Commercial, Residential or Institutional Purpose) in Hong Kong issued by the Environmental Protection Department, HKSAR in July 2008. Previous data were adjusted accordingly.

[3] Energy efficient installations refer to LED Exit sign, occupancy sensor/ photo sensor, water-cooled chiller/ evaporative cooling tower etc.

[4] A revised baseline for calculating the estimated energy saved was adopted in 2007 by taking into the account of the requirements of the BEC 2007 Edition and also the technological development. Direct comparison of data before and after 2007 is therefore inappropriate.

[5] Saving would mostly be harvested from the medium or large-scaled projects. In 2008, large numbers of relatively small-scaled projects, like schools, open spaces, toilets were completed and their contributing savings were comparatively small. In particular, the saving comparison benchmark in reference to (EMSD's BEC 2007 Edition) has been raised up since 2007, the savings would be deemed lower.

### ***Resource Usage - Fuel***

	Units	2008	2007	2006	2005	2004
Fuel consumption by ArchSD's pool cars	Litre	14,697.4	18,690	19,639	24,169	N/A
GHG emission equivalent to fuel consumption by ArchSD pool cars [6]	Tonnes CO <sub>2</sub> e	39.8	50.6	53.2	65.4	N/A

[6] GHG emission factors for mobile combustion are based on the [Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for buildings \(Commercial, Residential or Institutional Purpose\)](#) in Hong Kong issued by the Environmental Protection Department, HKSAR in July 2008. The GHG figures for 2005, 2006 & 2007 have been restated from 57.1, 46.4 and 44.1 respectively, as given in the previous Sustainability Report.

### ***Resource Usage - Office Materials***

	Units	2008	2007	2006	2005	2004
A4 paper consumption	Reams	19,653	20,263	21,765	21,182	23,700
A3 paper consumption	Reams	1,054	1,063	1,241	1,378	1,417
Envelop consumption	Number	59,478	55,323	70,812	77,119	65,818
A4/A3 paper with recycled content consumption	Reams / % of total paper purchased	21,460 / 99.49%	18,515 / 91.8%	18,984 / 79.5%	12,622 / 64.2%	5,753 / 21.3%
Types of eco-friendly office consumables	Types	13	13	13	13	18

### ***Resource Usage - Timber & Water Use***

	Units	2008	2007	2006	2005	2004
Timber saving	Volume of Timber Saved in m <sup>3</sup> (Ratio Normalised [7] by Contract Value)	367.05 (0.05)	1,424.29 (0.22)	284.69 (0.20)	1,382 (0.56)	1,461 (0.46)
Water saving	No. of Water-saving Sanitary Appliances (Ratio Normalised by Contract Value)	4,242 (0.56)	6,254 (0.94)	1,473 (1.00)	2,831 (1.15)	3,312 (1.29)
Flushing water use in APB Centre	Cubic Metre	33,789	N/A	N/A	N/A	N/A

[7] 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***

	Units	2008	2007	2006	2005	2004
<b>Construction &amp; demolition materials</b>						
C&D waste disposed of to landfills	Tonnes	26,833	24,952	46,858	76,536	96,793
C&D materials disposed of to public fill areas	Tonnes	839,097	564,284	206,209	585,447	651,057
<b>Recyclable waste collected at APB Centre</b>						
Waste paper	kg	2,331	2,286	2,475	4,570	6,859
Aluminium cans	No.	277	231	220	254	546
Plastic bottles	No.	286	250	265	424	629

### ***Environmental Convictions of Contractors***

	Units	2008	2007	2006	2005	2004
Convictions per 100,000 man-hours	ArchSD sites (HK sites)	0.501 (1.397)	0.424 (0.546)	0.140 (0.518)	0.231 (0.417)	0.515 (0.848)

### ***Environmental Expenditure***

	Units	2008	2007	2006	2005	2004
Resources devoted to environmental works	Value (\$ million)	789.3	639.7	639.45	664.1	675.3
Percentage of annual expenditure		10.3%	8.0%	7.1%	6.0%	5.2%

Considering all our refrigerants and fire extinguishing agents used during replacement are environmentally friendly models as well as the insignificant consumption amount, we will not report our non-ozone depleting substances consumption value in the future.

## **Social Performance**

### ***Staff***

	Units	2008	2007	2006	2005	2004
Staff establishment (As at March 31 each year)	No.	1,766	1,766	1,813	1,887	1,981
<b>Training</b>						
No. of training courses (including internal and external seminars/ workshops/ training courses/ visits)	No.	152	207	324	180	237
Numbers of trainees	No.	3,492	2,597	2,548	1,255	1,293
<b>Injury</b>						
Staff injury cases	No.	0	2	5	7	1
Staff sick leave granted for staff injury cases	Days	0	163	110	207.5	91

### ***Staff Establishment Breakdown***

<b>By Post</b>		
Directorate	%	2.25
Professional	%	22.80
General Staff	%	21.40
Site Staff	%	31.36
Technical	%	22.18
<b>By Age</b>		
Age under 30	%	1.5
Age 30-49	%	63.7
Age 50 or above	%	34.8
<b>By Ethnicity</b>		
Chinese	%	99.7
Non-Chinese	%	0.3
<b>By Gender</b>		
Male	%	73.4
Female	%	26.6

### **Staff Turnover**

	Male	Female
Age 30-50	2 (0.1%)	5 (0.3%)
Age 51-55	6 (0.4%)	3 (0.2%)
Age 56-60	21 (1.2%)	2 (0.1%)

### **Contractor's Accident Rate**

	Units	2008	2007	2006	2005	2004
No. of fatalities	ArchSD	1 [8]	0	2	3	1
Fatal accident rate per 100,000 man-hours	ArchSD (HK Construction Industry)	0.001 (0.011)	0 (0.010)	0.0085 (0.008)	0.0099 (0.012)	0.0024 (0.0072)
No. of non-fatal accidents	ArchSD	91	93	126	185	279
Non-fatal accident rate per 100,000 man-hours	ArchSD (HK Construction Industry)	0.48 (1.71)	0.44 (1.69)	0.54 (1.79)	0.61 (1.67)	0.67 (1.68)

[8] One fatal construction site accident in 2008 in Contract No. SS R309 that a worker fell from ground level to the bottom of a drainage trench of about 2.5m deep. An independent site audit check was immediately conducted on the spot to ensure the site's safety management system was in order.

### **Community Work**

	Units	2008	2007	2006	2005	2004
Total number of voluntary work hours carried out by our staff	Hours	2,129	2,526	2,005	1,194	1,360
Number of active Voluntary Service Team members [9]	No.	26 out of 1,766	35 out of 1,766	35 out of 1,699	47 out of 1,813	41 out of 1,887
Number of staff received commendation for voluntary service [10]	No.	13	20	12	14	1
Number of Volunteers	No.	48	45	44	42	38
Number of Voluntary Projects Completed	No.	53	50	49	37	30

[9] Active Voluntary Service Team member is defined as team member contributes more than 20 hours on voluntary service.

[10] Staff who can receive commendation for voluntary service is defined as team member contributes more than 30 hours on voluntary service.

### **Economic Performance**

	Units	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005
Personal salaries and allowances	HK\$ million	886.88	835.62	805.58	823.81	872.64
Personnel related expenses	HK\$ million	1.71	0.68	0.70	0.75	0.81
Departmental expenses	HK\$ million	100.79	94.01	65.15	66.69	68.69
Other charges	HK\$ million	480.76	469.02	475.33	475.63	480.02



## OBJECTIVE AND SCOPE

Hong Kong Quality Assurance Agency (herein “HKQAA”) was appointed by The Architectural Services Department (herein “ArchSD”) of the Government of the Hong Kong Special Administrative Region to conduct an independent verification on its Sustainability Report 2009 (herein “the Report”).



The Report described the past performance of ArchSD on economic, social and environmental aspects for the period from 1st January 2008 to 31st December 2008 against Global Reporting Initiative (GRI) Sustainability Reporting Guideline Version 3.0 (G3).

The objective of this verification exercise is to provide an independent review on the materiality, completeness, accuracy and reliability of the information presented in the Report and to assess whether the Report has fulfilled the reporting framework of G3 and contained the criteria in the GRI Application Level A+.

The verification scope has covered all reporting contents presented in the Report and included to

- Evaluate the overall reasonableness and balance of reporting taking into account of the data and information, and overall selection of content to satisfy the principles of GRI and to contain the Disclosures as required at Application Level A+;
- Assess whether the information presented is accurate, reliable and clear, and can reflect the sustainability performance of ArchSD;
- Verify the reliability of data and information management mechanism with respect to its collecting, verifying, reviewing, analyzing and presenting the data in the Report;
- Identify and recommend opportunities for further improvement in reporting.

## METHODOLOGY

Our verification procedures included the review of relevant documentation, on-site interviews with responsible persons with accountability for preparing the Report, selection of representative samples, verifying their data and information presented in the Report against the supporting evidence provided by ArchSD, including the database made available to our assessment team during the interviews.

The data and information were carefully verified for accuracy and cross-checked with third party information when available.

## OUR OPINION

After a thorough and detailed examination of the Report, our assessment team concludes the followings:

The Report provides a structured, balanced, reliable and consistent and accurate presentation of the sustainability management performance of ArchSD in the context of economic, social and environmental aspects. In addition, the Report demonstrates a fair and systemic representation of ArchSD initiatives, targets, progress and performance on its sustainability achievements, according to the requirements and criteria of GRI's Sustainability Reporting Guideline Version 3.0 (G3)

## Architectural Services Department - Sustainability Report 2009 - Report Verification

Further opportunities for improvement on the reporting structure and content will have been separately submitted to ArchSD for their consideration on the compilation of the Sustainability Report in next cycle. These will include such items as:

- More examples to show the achievements under Building Energy Code
- More details on the achievements of green building features
- Information about Award winning contractors' safety working methods

To conclude, the information provided in the Report was reliable in the presentation of ArchSD commitments, initiatives, performance and achievements for the reporting period, and the Report conforms to the reporting framework of G3 and the criteria specified in the GRI Application Level A+, to the best knowledge of assessment team.

Signed for and on behalf of HKQAA



Mr. King Hong Thomas MA

Lead Auditor, Strategic Business  
December 2009

## GRI Content Index



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.

### Additional indicators

We only report on EN5, EN6, EN18, EN30, LA11 and LA12 as additional GRI indicators.

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

	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		Hong Kong only
2.6	Nature of ownership and legal form		Part of the Hong Kong SAR 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 specific limitations
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities		No joint ventures
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		No significant changes
<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  About this report Report Assurance		
<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, led by Secretary for Development, is the highest governance body for ArchSD, which is led by Director of Architectural Services
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	Not applicable	Within the 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  Strategy and Management Staff Relations		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, and the organization's performance		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

Architectural Services Department - Sustainability Report 2009 - GRI Content Index

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 guidelines
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 compliance with internationally agreed		
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  Stakeholder Engagement Project Quality		
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group		

Architectural Services Department - Sustainability Report 2009 - GRI Content Index

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  Stakeholder Engagement Project Quality		
<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  Strategy and Management About Us		
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		
<b>ECONOMIC PERFORMANCE INDICATORS</b>			
	Disclosure on Management Approach (Economic)		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

Architectural Services Department - Sustainability Report 2009 - GRI Content Index

<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  Strategy and Management Supply Chain Management		
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  Construction Waste Management Environmental Performance		
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		
EN5	Energy saved due to conservation and efficiency improvements		

Architectural Services Department - Sustainability Report 2009 - GRI Content Index

EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives		
<b>III. Water</b>			
EN8	Total water withdrawal by source		The total flushing water consumption was 33,789 cubic meter in 2008. The total potable water consumption will be reported in next year report.
<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		
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas		
<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 central data collection mechanism for electricity consumption on construction sites in place as we have captured major direct and indirect emission.
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved		
EN19	Emissions of ozone-depleting substances by weight		The use of materials with ozone-depleting substances have been avoided in our projects.
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		To conform to the local environmental regulations, 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  Construction and Waste Management Environmental Performance		
EN23	Total number and volume of significant spills		There have been no reported spills in 2008.
<b>VII. Products and Services</b>			
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation  Strategy and Management Research and Development		

Architectural Services Department - Sustainability Report 2009 - GRI Content Index

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 total monetary value involved is \$39,000.
<b>X. Overall</b>			
EN30	Total environmental protection expenditures and investments by type		
<b>SOCIAL PERFORMANCE INDICATORS</b>			
	Disclosure on Management Approach - Labour  Strategy and Management Staff Relations		
	Disclosure on Management Approach - Human Right		
	Disclosure on Management Approach - Society		
	Disclosure on Management Approach - Product Responsibility		
<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		Staff are well informed and consulted regarding significant changes beforehand, and notices are issued as soon as possible, although minimum notice period is not prescribed in government internal circulars. An example would be the transfer of plumbing and drainage installations responsibility; staff consultation was initiated 7 months prior to the implementation. We will report in mid-term when relevant procedures are formalised.
<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		

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  Staff Development Social Performance		No measurement mechanism in place to identify the total training hours within each employee category as training is identified by type (i.e. succession, vocational and career development) and not by employee category.
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings		
LA12	Percentage of employees receiving regular performance and career development reviews		The performances of all our employees are reviewed at least annually.
<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		The Hong Kong SAR Government is not discriminatory about gender differences. There is no difference between male and female employees in the remuneration package. The ratio of basic salary of men to women of the same rank is 1:1.
<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 undergone human rights screening		Our operations do not involve with investments
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken		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 mid-term.
<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  Health & Safety Project Environmental Assessment		
<b>II. Corruption</b>			
SO2	Percentage and total number of business units analyzed for risks related to corruption		
SO3	Percentage of employees trained in organisation's anti-corruption policies and procedures		
SO4	Actions taken in response to incidents of corruption		In 2008, no incidents of corruption was reported. In case incidents of corruption are encountered, we will report to Independent Corporation Against 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		

Architectural Services Department - Sustainability Report 2009 - GRI Content Index

<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 by long term 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>			
PR15	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		

Note: For the indicators that are not applicable or not available, the reason for omission is provided for each of this indicator.



<b>Building Environmental Assessment Method (BEAM)</b>	Quote from BEAM Society, "A means by which to benchmark and improve performance in the planning, design, construction, commissioning, operation and management of buildings."
<b>Carbon Audit</b>	A systematic and scientific approach to account for the greenhouse gas emissions arising from the operations of the buildings.
<b>Global Reporting Initiative (GRI)</b>	A multi-stakeholder-governed institution which provides a generally accepted framework for sustainability reporting. It has developed the world's most widely used sustainability reporting framework. This framework sets out the principles and indicators that entities can use to measure and report their economic, social and environmental performance. More than 1,000 companies and other organisations, including the owners of many of the world's leading brands, have declared their voluntary adoption of the Guidelines which have been prepared in accordance with the GRI. Consequently, these Guidelines have set the de facto global standard for reporting.
<b>Leadership in Energy and Environmental Design (LEED)</b>	The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), provides a suite of standards for environmentally sustainable construction.
<b>Overall Thermal Transfer Value (OTTV)</b>	A measure of the energy transferred through the envelope of a building and has a direct correlation with energy consumption.
<b>Universal Accessibility</b>	The concept of Universal Design forms the backbone of Universal Accessibility. It is a design approach to a universally accessible standard in which all products, environments and communications will allow for the widest spectrum of people in our communities regardless of diversity, age and ability.



## Sustainability Report 2009

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. We would be very grateful if you could take a few minutes to complete the following form and send it back to us.

1. How strongly do you agree with the following statements about the report?

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Additional comments
Most relevant issues are covered.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Content is balanced and reliable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Content is clear and easy to understand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Structure and layout are rational and easy to use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>

2. Overall how would you rate the report?

Excellent	Good	Adequate	Marginal	Poor	Additional comments
<input type="radio"/>	<input type="text"/>				

3. In accordance to the report, how would you rate our sustainable performance?

Excellent	Good	Adequate	Marginal	Poor	Additional comments
<input type="radio"/>	<input type="text"/>				

4. What information would you like to see in future reports?

5. Other comments:

6. Which of the following best describes you?

- Client of ArchSD
- Government Department
- Consultant / Contractor / Supplier / Construction Industry
- Architect / Engineer / Landscape Architect / Surveyor
- Environmental NGO
- Social NGO
- 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:	<input type="text"/>
Your Organisation:	<input type="text"/>
Your Telephone:	<input type="text"/>
Your Email address:	<input type="text"/>

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).

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