

Sustainability Report 2010



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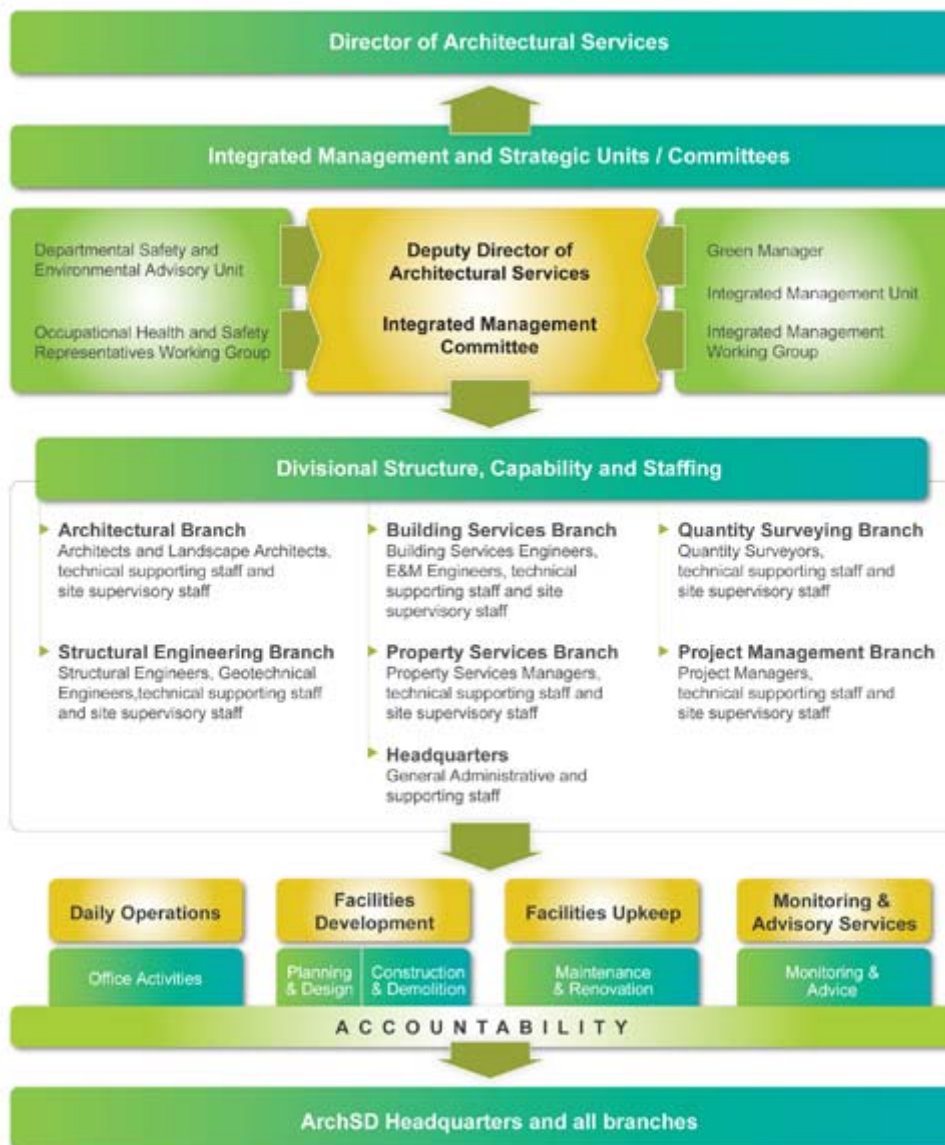
## About Us

Architectural Services Department (ArchSD) is the works agent for the Government of HKSAR in procuring and upkeeping public facilities.

## ArchSD role in the Government of HKSAR



## Organisational Structure



## Key Facts about ArchSD

Founded on: 11 April 1986

Staff Establishment: 1,781 (as at 31 March 2010)

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 24,000 m<sup>2</sup> (as at 31 December 2009)

Scale of Services: (from 1 April 2009 to 31 March 2010)

- Number of Subvented / Entrusted projects reviewed: 816\*
- Number of Facilities Development Projects completed: 47
- Building Floor Area of Properties maintained: 29,157,000 m<sup>2</sup>
- Expenditure on Facilities Development Projects: HK\$ 6,727 million
- Expenditure on Facilities Upkeep works: HK\$ 3,835 million
- Value of the Subvented / Entrusted projects reviewed: HK\$ 43.48 billion\*
- Value of New works under development: HK\$ 72 billion

\*The data of the subvented/entrusted projects is taken from 1 January 2009 to 31 December 2009

## Our Services

The 3 main areas of our services are:

- **Monitoring and advisory services** - to provide effective professional and technical advices 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.

## About This Report

### Reporting Objectives

This is our twelve year of reporting and the seventh annual Sustainability Report published by ArchSD of the Government of HKSAR. All along, we have been providing transparent and credible information to our stakeholders to demonstrate our operation cycle and corresponding activities in the economic, environmental and social aspects. This report also serves as a platform to seek invaluable feedbacks from our stakeholders for the continuous improvement of ArchSD.

### Reporting Scope

The Sustainability Report 2010 covers all our major performance and on sustainable management from 1 January 2009 to 31 December 2009. During this reporting period, there was no significant change regarding the size, organisational structure and ownership of the department.

Data are presented as absolute figures. Statistics are normalised into comparable terms where appropriate and practicable. Data covered in this Report represent the performance of all our 6 branches excluding our contractors and suppliers unless otherwise stated. Adopting the same principle, qualitative information reflects the effect brought by all our direct activities. Financial data are recorded according to fiscal year ended 31 March 2010. All monetary values highlighted in this Report are in Hong Kong Dollars.

### Reporting Principles

This report is prepared in accordance with the Environmental Protection Department (EPD)'s "A Guide to Environmental Reporting for Controlling Officers", the Global Reporting Initiative (GRI) G3 Guidelines and its Sector Supplement for Public Agency.

The contents of this Report fulfil the requirements of "A+" application level defined in the GRI G3 Guidelines. This grade is an indication of the comprehensiveness of our reporting approach and is a reflection of our transparency on GRI indicators. The full GRI indicators table can be found in the GRI Content Index, which correlates with different associated sections. A third-party independent assurance has been employed to verify the credibility of this report and ensured its attainment to "A+" level.



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

\*Sector supplement in final version

### ***Note to Reader***

This Report is published online in a web-based interactive html version, PDF version and text-only version with 3 languages (English, Traditional Chinese and Simplified Chinese). CD-ROM is also available upon request.

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 locate any specific interested sections or information efficiently.
- "My Report" function enables readers to temporarily store any selected section(s) for consolidation and printing.
- "Glossary" section provides technical definitions of the technical terms using in or relevant to this report.

## Message from the Director

Dear Stakeholders,

Welcome to our seventh Sustainability Report, SR 2010, which presents our sustainability development activities and performances in 2009. Similar to past years, this Report has achieved the A+ level of the Global Reporting Initiatives' G3 guideline.

The theme of this Report is 'Building a Greener Future'. In 2009, we worked hard in alleviating the carbon footprints of our operation and promoting green building design. We have adopted several best practices for sustainable development such as widening renewable energy application and promoting the participation in credited assessment methods on environmental performance measurement.

We treasure the views of our stakeholders. To continue our success in delivering quality services, we have conducted more Client Satisfaction Surveys (CSSs) and expanding the scope of the Post Occupancy Evaluation to ensure the needs of our clients and users are well addressed. Our effort has been recognised through the results of the CSSs conducted last year, with all our clients rated our services as "satisfied" or above.

On job creation, which is particularly important in 2009 to address the impact of the global financial crisis in late 2008, we have explored various procurement methods and contract strategies to shorten the lead time for projects to commence construction on site. A total of over 10,000 jobs were created for the construction industry in 2009 through the implementation of 47 new projects.

While our staff have been whole-heartedly serving the community and overcoming the challenges they are facing, we experience that the existing human resources of ArchSD have been stretched to the very limit in coping with the fast growing demand for our services. In view of this, in 2009, we embarked on a 5-year Departmental Business Plan (DBP) covering the period from 2010/11 to 2014/15 with all our staff actively participated. The DBP intends to develop a new organisational structure that is flexible enough in tapping individual talent for rapid responses to meet the future challenges. The new operating strategy to be formulated in the DBP will not only be tactful in repositioning our roles and responsibilities without losing our identity as the front runner of the industry, but also considerate enough in fostering future development in sustainability.

We hope you will find this Report informative. For our continuous improvement, please share your invaluable views with us by completing and returning the [feedback form](#) at the end of this report.

Mrs Marigold Lau JP  
Director of Architectural Services



## Our Sustainability Approach

### Strategy and Management

As the advisor, the designer, the project manager and the maintenance agency of the Government properties, we shouldered the responsibility to comply with and promote the latest Government policies, guidelines and initiatives in working towards the sustainable development of our community. In order to maintain the momentum of our success in promoting sustainable development, ArchSD has persistently up-kept the following undertakings.

Our Integrated Management System (IMS) allows us to achieve our departmental goals and helps delivering our vision, mission and values in a more effective and efficient manners. It fulfils the requirements of the international standards (ISO 9001, ISO 14001 and OHSAS 18001). It also ensures a uniform and systematic approach is adopted to effectively handle the issues in relations to quality service, environmental and health & safety impacts to our stakeholders. The IMS is governed by the Integrated Management Committee under the direction of the Policy Administration Committee and Senior Staff Forum. This arrangement allows the top management overseeing the long-term implementation of the system that leads to eventual success.

Our social affairs, such as labour relation and staff welfare, are managed effectively through our human resources management and ethical supply chain management, which align with the policies of the Civil Service Bureau and the Development Bureau. Also, we fully comply with the Employment Ordinance and prohibit child labour and forced labour. Following local legislation, we do not hire youths of aged 15 years or younger, nor students aged 18 or younger. It is important that the welfare and the rights of on-site workers have to be protected for maintaining a healthy and happy working environment. The provision of a Labour Relations Officer in most of our projects establishes a direct channel to tackle labour problems at their early stages.

To further address the environmental concerns, particularly in green construction, a Green Building Committee has been established. The Committee sets out requirements and procedures, gives advices, determines action plans and monitors the implementation of departmental policies and strategies in all matters related to green buildings and sustainable construction.



The Senior Staff Forum is administrated by our Director and overviews the management and operation of ArchSD. Photo taken in September 2010, from left to right: Ms. S. Li, AD (QS); Mr. H. Choi, PD/1; Mr. W. Lee, PD/3; Mr. S.K. Ho, AD (BS); Mrs. M. Lau, DArchS; Mr. K.K. Leung, DDArchS; Mr. S. W. Fong, AD(PS); Mr. C.P. Chow, PD/2; Mr. W.W. Li, AD (SE); Mrs. P. Tam, AD(A).



## Vision, Mission and Values\*

### Our Vision

Serve and care for our community by enriching the living environment through quality professional services

### Our Mission

- Ensure the quality and sustainable development of community facilities
- Ensure the quality upkeep of community facilities
- Provide quality professional advisory services on community facilities and related matters
- Promote best practices in the building industry.

### Our Core Values

- Professionalism
- Commitment
- Accountability
- Integrity
- Versatility
- Continuous Improvement
- Team Spirit
- Partnering Spirit
- Caring Attitude

\*Version was promulgated in May 2010.

### 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.

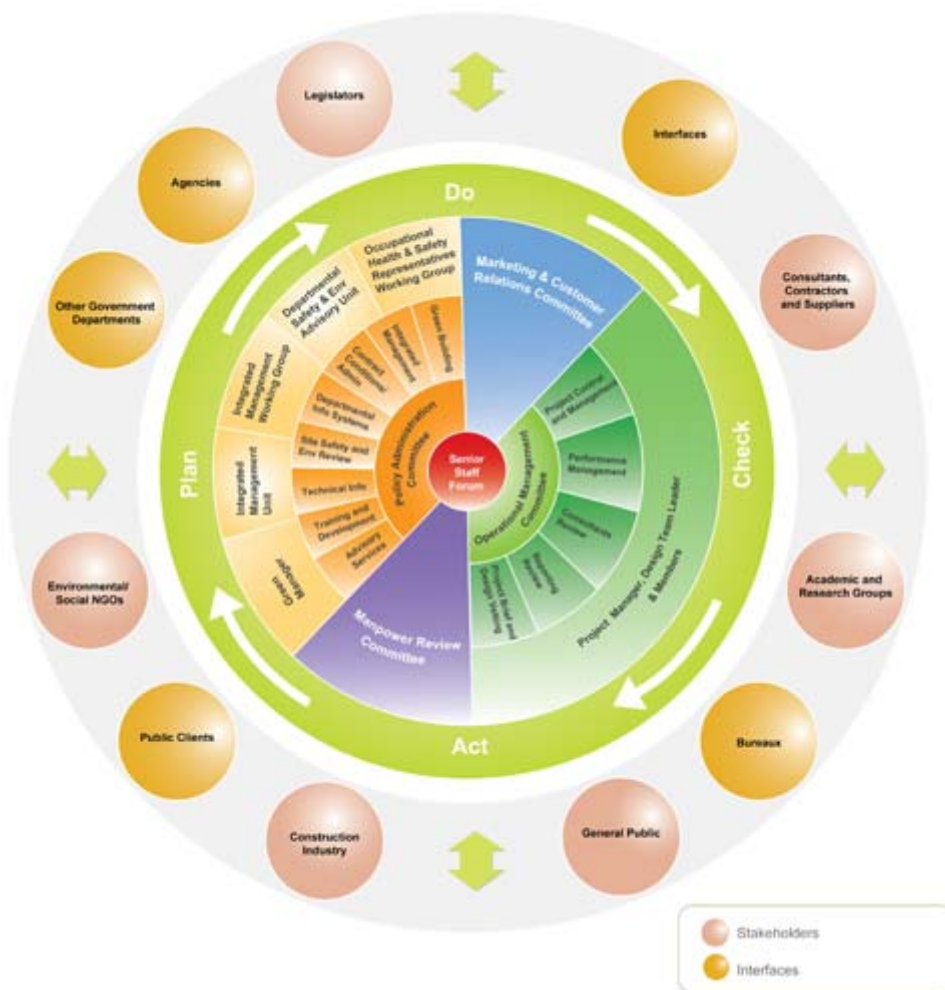
## Risk Management

Under our comprehensive IMS system, potential risks related to our operations and services are identified and carefully managed through the "Plan, Do, Check, Act" cycle. Senior Staff Forum, which is chaired by our Director, oversees the IMS. The Forum will also consider any potential impact upon the economy, society and the environment during the decision making process and direct any necessary action to contain such risk to a minimal level.

At project level, we manage the risks systematically from the inception to the construction stages of a project. By adopting the guidelines of former Environment, Transport and Works Bureau Technical Circular (Works) No. 22/1993 on "Estimating Using Risk Analysis" and No. 6/2005 on "Implementation of Systematic Risk Management in Public Works Projects", we carefully identify the risks which may arise in our projects and make necessary provisions to keep the impacts to the acceptable level. Our project teams are encouraged to meet with the client department and analyze the risks at the feasibility stage and thereafter, as necessary, to reduce or eliminate the potential risks in our projects.

## Integrity

One of the risks which may affect all Works Department is bribery and corruption. To eliminate this risk, we are devoted to zero tolerance. We would report any bribery to the Independent Commission Against Corruption (ICAC) when discovered. We are cooperative with the ICAC in their investigation or studies on corruption prevention and independent analysis. In 2009, one assignment study was conducted to identify areas of improvement for the department.



Governance Structure and Organisation Chart

## Objectives and Targets

In 2009, we achieved most of our environmental objectives and targets, and our quality and social objectives. To continuously improve our sustainability performances, we have also set short term targets for 2010.

### Environmental Objectives

Long Term Objectives	Targets for 2009	Achievements	Target Compliances	Targets for 2010
Reduce water consumption	To install water-saving devices for 92% of sanitary appliances in new buildings	90.1% (3,602 out of 3,998) of sanitary appliances	Partially complied	To install water-saving devices for 92% of sanitary appliances in new buildings
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 18 W/m <sup>2</sup> for 70% of projects	100% for all new projects (16 projects) achieved with OTTV less than 23 W/m <sup>2</sup> , and 68.8% (11 projects) for projects achieved with less than 18 W/m <sup>2</sup>	Partially complied	To achieve 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 18 W/m <sup>2</sup> for 70% of projects (with reference to BEAM classification) Statutory requirement: 30 W/m <sup>2</sup>
	To use water-cooled heat rejection system in centralised air-conditioning system for 100% of new projects	5 out of 5 new projects	Complied	To use water-cooled heat rejection system in centralised air-conditioning system for 100% of new projects
	To adopt Building Energy Management (BEM) System for all new joint user buildings	6 out of 6 new joint user building projects	Complied	For all new joint user buildings or urban complex building, BEM System shall be adopted to calculate the energy charges for individual client department
	To apply services-on-demand control for escalator / travellator for 100% of new projects	5 out of 5 new projects	Complied	No targets set for 2010 as being default specification in new projects
	To use T5 fluorescent light or Light Emitting Diode (LED) lamp for passenger lift car illumination for 100% of new projects	22 out of 22 new projects	Complied	To use T5 fluorescent light or LED lamp for passenger lift car illumination for 100% of new projects

**Architectural Services Department - Sustainability Report 2010 - Our Sustainability Approach**

	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	15 out of 15 new projects	Complied	100% (from 80%) of new projects where lighting effect of spot light and display light is required to be created by miniature tungsten halogen lamp, energy efficient lighting such as LED lamp should be employed
Improve visual and air quality of our city	To landscape usable roof area /or terrace for 100% of new projects	30 out of 30 new projects	Complied	100% of new projects to landscape usable roof area and/or terrace
	To incorporate vertical greening in 52% of new projects	96.8% new projects	Complied	To incorporate vertical greening in 55% of new projects

**Social Objectives**

Long Term Objectives	Targets for 2009	Achievements	Target Compliances	Targets for 2010
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	2.8 occupational injuries per 1,000 staff per year	Target not complied	Accident rate for ArchSD staff should be not more than 2 occupational injuries per 1,000 staff per year
Minimizing the accident rate in ArchSD contracts	Accident rate in ArchSD contracts should be less than 0.75 reportable accident per 100,000 man-hours worked	0.39 reportable accidents per 100,000 man-hours worked	Complied	Accident rate in ArchSD contracts should be less than 0.75 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	Organise at least 4 in-house workshops on safety and health	6 in-house workshops / seminars were organised with a total of 527 attendants	Complied	At least 4 in-house workshops on safety and health should be organised
Encouraging practice of environmental protection measures and communicating our environmental policy to other Government departments / organisations	To record and monitor general technical advice on environmental protection measures (1,800 nos. of advice for 2009)	1,962 environmental advices were given in 2009	Complied	No targets set in 2010 as being default operation

**Architectural Services Department - Sustainability Report 2010 - Our Sustainability Approach**

Promoting environmental awareness among staff, consultants, contractors & the public	To organise / participate in courses/ seminars/ visits/ publicity events related to environmental issues	5 conferences, 5 symposiums, 16 seminars, 8 courses and 2 workshops related to environmental issues were attended by staff	Complied	To encourage practice of environmental protection measures and communicate our environmental policy through advice given to other Government departments/ organizations
Promoting the awareness on safety and health amongst contractors	At least 40% of ArchSD eligible new works contracts and 30% of eligible maintenance term contracts would participate in Development Bureau Considerate Contractors Site Award Scheme (CCSAS)	78% (14 out of 18) of eligible ArchSD new works contracts and 50% (8 out of 16) of eligible maintenance term contracts were participated in CCSAS 2009	Complied	At least 40% of ArchSD eligible new works contracts and 30% of eligible maintenance term contracts would participate in Development Bureau CCSAS
Strengthening health and safety knowledge for project staff with external training	At least 10 external safety training courses on latest safety technology, current safety legislation, etc. should be arranged for project staff per year	17 external training courses were arranged with 664 attendants from professionals &/ technical staffs and site staffs	Complied	At least 10 external safety training courses on latest safety technology, current safety legislation etc should be arranged for project staff per year

**Project Quality Objectives**

Long Term Objectives	Targets for 2009	Achievements	Target Compliances	Targets for 2010
Improve the quality of our services and project delivery	To ensure timely delivery of at least 80% of Capital Projects	17 out of 17 projects met the target	Complied	To ensure timely delivery of at least 80% of Capital Projects
	To monitor and ensure the expenditure on Public Works Programme projects not to exceed 5% under-spending of the budgeted amount	0.2% (\$19.3M) under-spending by end of 2009/10	Complied	To monitor and ensure the expenditure on Public Works Programme projects not to exceed 5% under-spending of the budgeted amount
	To harness the resources of the private sector through outsourcing of public projects, to maintain the target percentage of outsourcing (90% at end of 2008/09)	91.1% value of capital works projects were outsourced	Complied	No targets set for 2010 as being default operation

**Architectural Services Department - Sustainability Report 2010 - Our Sustainability Approach**

	To achieve 100% of the completed projects with at least Satisfactory level or above on the overall performance in the Client Satisfaction Survey	25 out of 25 projects have achieved Satisfied Level or above	Complied	To achieve 100% of the completed projects with at least Satisfactory level or above on the overall performance in the Client Satisfaction Survey
	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	"Design Guide for plumbing Installation" and "Design Guide for Drainage Installation" were issued	Complied	To prepare at least 2 nos. of Proforma Specification/ Guidance Notes for special/ innovative BS installations to strengthen staff technical knowledge on advance technology
	To commence not less than 90% of new projects scheduled in 2009-10 in accordance to the target commencement dates	24 out of 24 new projects commenced on schedule	Complied	To commence not less than 90% of new projects scheduled in 2010 in accordance with the commencement dates committed in the 2009

## Departmental Business Plan

Our first Departmental Business Plan was prepared in the '90s to meet the needs of the Government, by large the public, at the time. The Departmental Business Plan had indeed achieved its historic objectives and guided us through the difficult time of the re-engineering. Emerging from the re-engineering era, our vision needed to revise for a more clear direction. Compounding with the aftermath of the financial tsunami and the public outcry for better services, we are in need of a new direction and objectives. It is about time for us to think about our second Departmental Business Plan (DBP) and work out our roadmap for future development.

In order to break the inert mindset of the post re-engineering attitude, our DBP has to have some elements of adventure and revolutionary. In such prospect it is important that the DBP has to be clear and acceptable from the stand point of our stakeholders. Our staff (backbone of the DBP) would be the vital element for the success of the DBP. As such we need to get our staff to participate in the early stage of the drafting of the DBP. To this end, we established the Business Plan Core Group (BPCG) in 2009 to steer the development of the DBP. The BPCG is composed of different disciplines, including architects, engineers, project managers, surveyors, training officers and technical secretaries. In addition, 16 Business Plan Working Groups/Task Forces/Sub Task Forces were set up to get in touch with staff representatives at all levels on different special focus areas.

We have also made use of an existing mechanism within the Civil Service Training and Development Institute (CSTDI) of the Civil Service Bureau (CSB) to launch a series of staff consultation exercises since September 2009. More than 20 interviews/ meetings/ workshops/ interactive briefing sessions have been conducted by December 2009. About 780 staff participants from a wide spectrum of disciplines including directorate, professional, technical, and general and site staff have joined. Along the course of these exercises, we have discussed about various topics covering the challenges they perceived, the applicability of the present vision, mission and core values, and the potential areas for improvement. Their active participations and insights provided useful inputs for shaping the DBP.



## Architectural Services Department - Sustainability Report 2010 - Our Sustainability Approach

In parallel, we conducted a staff survey on the 5-year DBP to gather their views on our way forward. CSTD1 also provided us with useful advice on the design of our staff survey on the 5-year DBP, and assisted us in the analysis of the data in a highly efficient manner. A total of 482 departmental grade officers completed and returned the staff survey questionnaire, which representing a high response rate of 35%.



From the consolidated inputs of our staff, we have revisited our vision, mission and core values and redefined them taking into consideration of our present position and future aspiration. The final 5-year DBP and the staff survey results will be discussed in details in the next Sustainability Report.



## Main Focus Areas

Throughout the years, we have continuously engaged a wide spectrum of stakeholders, which has helped us to better identify issues that matter to the community in relation to our operations and services.

The priority sustainability issues for reporting based on representative stakeholders and verifier's comments and GRI Guidelines are as follows:

	Priority sustainability issues	Reported Sections
Environmental	<ul style="list-style-type: none"> <li>■ Impact on climate change</li> <li>■ Greenhouse Gas (GHG) emissions</li> <li>■ Waste generation and recycling</li> <li>■ Wastewater discharge and reuse</li> </ul>	<ul style="list-style-type: none"> <li>■ Climate Change and Energy Use</li> <li>■ Climate Change and Energy Use</li>   <li>■ Reuse and Recycling</li> <li>■ Reuse and Recycling</li> </ul>
Social	<ul style="list-style-type: none"> <li>■ Occupational Health and Safety (OH&amp;S)</li> <li>■ Staff relationship &amp; development</li> <li>■ Public facility quality</li> <li>■ Community involvement</li> </ul>	<ul style="list-style-type: none"> <li>■ Health and Safety</li>   <li>■ Staff Engagement; Staff Development</li> <li>■ Strategy and Management</li> <li>■ Community</li> </ul>
Economic	<ul style="list-style-type: none"> <li>■ Corporate governance</li>   <li>■ Economic impact</li> <li>■ Customer and supplier relationship</li> </ul>	<ul style="list-style-type: none"> <li>■ Strategy and Management; Departmental Business Plan</li> <li>■ Funding and Support</li> <li>■ Project Quality Management; Supply Chain Management</li> </ul>

You can learn more about our commitments and achievements in these priority issues presented in the indicated reported sections.

## Stakeholder Engagement

To enhance two-way communications with our stakeholders, we have proactively engaged them through different platforms and channels, such as meetings, websites, surveys, seminars / conferences. Following our Stakeholder Engagement Plan, we have conducted 6 interviews with 5 different stakeholder groups, including clients, contractors, staff, professional organisations and NGOs, to gather their comments on our sustainability performance for steady improvement.

Stakeholder Groups*	Engagement Approach
Clients/customers	Client Satisfaction Surveys, Post Occupancy Evaluations, Meetings, and Public Functions
Consultants and Contractors	Functions conducted by Professional bodies, Competitions, Green Contractor Awards, Site Visits and Considerate Contractor Awards
Legislators & local district councillors	Public Works Sub-Committee Meetings, District Council Meetings, Presentations of Mega Projects and Public Functions (such as tree planting, hoarding beautification, etc.)
Staff	Staff activities, Staff Motivation Scheme, Web Forum, Departmental Consultative Committee, Joint Staff Consultation Group, ArchSD Staff Relation Units and Staff Associations
Suppliers	Seminars and Trade Talks
Public building users (e.g. general public)	Client Satisfaction Surveys, Post Occupancy Evaluations, Enquiries and Opening Ceremonies
Media	Enquiries, Opening Ceremonies, and Press Release
NGOs & pressure groups	Advisory, Public Functions, Meetings, District Council Meetings and Site visits
Local communities around different project sites	Public Functions, and Community Works by ArchSD and Contractor (such as tree planting, hoarding beautification, etc.)
Academia/research groups	Study conference, Training and Overseas Training
Professional organisations	Functions conducted by Professional bodies, Communication Meetings and Competitions
International readers	ArchSD Web Site, Duty Visits and Enquires

\*The identification of Stakeholder Groups are based on our projects engagement and interactions.

## Recognitions and Awards

We maintain quality operation through good governance and practices. For the benefit of the public, we continue to explore innovative elements/ideas in our projects. Our efforts have been recognised and rewarded, as reflected in the following awards and certifications.

### Quality Building Award (QBA) 2010

New building design illustrates our work in engaging greater fabric and diversity of new buildings and refurbishment.

The QBA 2010 with the theme of "Quality Transcends Time", co-organised by 9 professional organisations in Hong Kong, sought to give public recognition to buildings of prominent quality in creating better environment and, more importantly, the future. We submitted the application in 2009 and the results were announced in 2010. Two of our projects namely "Reprovisioning of Diamond Hill Crematorium" and "Tseung Kwan O Sports Ground" were honoured the Merit Winner and Certificate of Finalist respectively under the Hong Kong Non-Residential Category.



Diamond Hill Crematorium



Tseung Kwan O Sports Ground

**Hong Kong Institute of Architects (HKIA) Annual Awards 2009**

To encourage and recognize the cutting edge building design, HKIA launches HKIA's Annual Awards every year. For the "Reprovisioning of Diamond Hill Crematorium" project, it was honoured with a Merit Award – Community Building by the HKIA in the HKIA Annual Awards 2009.



Diamond Hill Crematorium

**ArchSD Annual Award 2009**

To provide long-term incentive for uplifting the sustainable development of our buildings, we launched the internal ArchSD Annual Award every year to acknowledge the achievement of our outstanding projects. This year, among the 17 entries, the external jurors Professor Ralph LERNER and Prof Hon Patrick LAU Sau-shing, SBS, JP accompanied our Director to choose the following conspicuous projects as the winners.



Merit Award - Additional Columbarium at Diamond Hill



Merit Award - Reprovision of Diamond Hill Crematorium



Merit Award - Centre for Youth Development at Chai Wan



Special Architectural Award (Architectural Interior) - Interim Hong Kong Planning and Infrastructure Exhibition Gallery

### Hong Kong Flower Show 2009

With vibrant colours of bright floral masses emphasizing textures and shapes, our display echoed the theme of the Hong Kong Flower Show 2009 and successfully generated a mood of celebration of the hosting of the East Asian Games 2009 in Hong Kong. Our Display Booth was well recognised and won the Grand Award for Outstanding Exhibit under the category of Landscape Display, Displays Section (Local).



Grand Award - Outstanding Exhibit under the category of Landscape Display, Displays Section (Local)



Certificate of Appreciation

**The Hong Kong Council of Social Service (HKCSS)**

Our commitment in building a lasting partnership with the employees, the community and other stakeholders is not limited to continuing the present scope, but also enhancing and expanding.

ArchSD was recognised as a Caring Organisation in 2009 which setting a good model for others to follow.



Caring Organisation Label

**Hong Kong Awards for Environmental Excellence (HKAEE)**

It is unavoidable that our operation and services generate substantial amount of waste and consumed a significant amount of energy. We, therefore, take concerted action to set up goals and adopt measures to reduce the amount of waste generated by our activities and our electricity consumption in our premises.

We give clear instructions to our contractors to be vigilant with waste management.

In our office, we conducted a delamping exercise to minimize the lighting as far as possible, adopted motion sensors to turn lighting off when the area was not occupied. Equipment timer switches were also applied on office equipments to cut their powers during non-office hours. An annual saving on electricity consumption of more than 1 % was achieved.

In 2009, we were awarded with "Class of Good" Wastewi\$e Label and "Class of Good" Energywi\$e Label for our sustainability performance.



"Class of Good" Wastewi\$e Label



"Class of Good" Energywi\$e Label

## Climate Change and Energy Use

### Energy Saving Design

As a commitment to build a greener future, we have strived to reduce our carbon footprints. We have proactively shared our knowledge in green building with the Bureaux and facilitated the launch of the Joint Circular issued by the Development Bureau (DEVB) and the Environment Bureau (ENB) on Green Government Buildings (ENB Circular Memorandum No. 2/2009 / DEVB Technical Circular No. 5/2009) in April 2009. From then onwards, all our new projects have been closely following the requirements of this new Joint Circular.

According to the requirements as stated in the Joint Circular, all new government buildings/facilities with construction floor area of more than 10,000m<sup>2</sup> are required to obtain the second highest grade or above under an internationally or locally recognised building environmental assessment systems. Since the establishment of the Hong Kong Green Building Council (HKGBC), we have been helping to promote green building practices by adopting Building Environmental Assessment Method (BEAM) in some of our new coming projects.

We acted to further enhance the designs of our buildings/facilities to address environmental impacts throughout the life cycle of the buildings/facilities. In response to the promulgation of the implementation of Building Energy Codes (BEC), we have referred to the BEC 2007 edition to raise the baseline for calculating the estimated energy saved from our completed projects. A total of 1,305 certificates have been issued within the BEC under the Hong Kong Energy Efficiency Registration Scheme for Buildings since 1998, which clearly depicted our long-term commitment in energy saving.



## Case Study of Energy Saving Design - Redevelopment of Lo Wu Correctional Institution

### Project Description:

The project is a complex renewal scheme in the territory, which includes the demolition and removal of the existing Lo Wu Correctional Institution and the Lo Wu Saddle Club, and the construction of 3 new correctional institutions to accommodate 1,400 inmates. Associated common and supporting facilities were also constructed.



Lo Wu Correctional Institution



Photovoltaic panels for electricity generation

### Design and Features:

The redevelopment is designed to rest on a terrain with balanced cut and fill to harmonize with the surrounding environment. The following sustainability features are also adopted:

- Introduction of natural daylight to the areas such as dormitories, workshops and indoor recreational halls to utilise sunlight during daytime and reduce the energy consumption;
- Introduction of cross ventilation in the Dormitory and Workshop Blocks; and
- Installation of external landscaped green roofs to reduce the need of air-conditioning in the building and hence to reduce the electricity consumption.

One of the sustainability features of the project is the utilization of renewable energy through:

- Installation of 40 nos. of solar panels (92.8m<sup>2</sup> net area) with estimated energy output of 50kW; and
- Installation of 225 nos. of photovoltaic panels (153m<sup>2</sup> net area) with estimated energy output of 19kW.



Solar panels for hot water preheating at Central Block



Green Roof of Dormitory Block



## Case Study of Energy Saving Design - Tseung Kwan O (TKO) Sports Ground

### **Project Description:**

The 59,000m<sup>2</sup> TKO Sports Ground demonstrates to the public the sustainable and energy saving designs of a quality international arena, while cultivating the sporting culture in the community.



### **Design and Features:**

One of the significant sustainability features of the project is the utilization of renewable energy and clean energy through:

- Installation of 50 nos. solar panels (90m<sup>2</sup> net area) for hot water supply system with an estimated power output of 76kW;
- Installation of 58 nos. (76m<sup>2</sup> net area) photovoltaic panels with an estimated power output of 10kW; and
- Maximising the utilization of sunlight during daytime by providing 9 skylights above spectator stand.

Other energy saving initiatives related to air-conditioning and other electrical installation are:

- Adaptation of variable air volume system in A/C system;
- Use of occupancy sensors to automatically switch off the A/C system and lighting for unoccupied rooms; and
- Installations of high efficiency T5 fluorescent lamps with electronic ballasts and LED exit signs.

**Comment from University Grants Committee (UGC)**

*"ArchSD has played an active role in supporting the building development in the UGC-funded sector. In particular, ArchSD has encouraged UGC-funded institutions to adopt green building features in their major capital projects as well as minor works projects. In the future, we would like to work closer with ArchSD in exploring more pilot green building features in campuses of UGC-funded institutions."*

Mr. SO, Raphael  
Senior Executive Officer (Capital)  
University Grants Committee

**Our Response:**

*We are pleased to offer our Clients professional and technical advices on green buildings and adoptions on green building features. In 2009, we have started our very first trial pilot project at the Second Secondary School at Development near Choi Wan Road in Kwun Tong to demonstrate the feasible adoption of energy enhancement features into school premises. We will continue to explore feasible highly efficient energy enhancement features in new building works. Any experience and knowledge we learn through our works would be shared with the relevant stakeholders as appropriate.*

## Greening

To contribute ourselves in enriching the landscape, enhancing energy performance of buildings and reducing the heat island effect, we have taken effective greening initiatives. These include landscape enhancement, application of green roofs and vertical greening, and preservation of important and valuable trees, which allow buildings and facilities to blend with the environment.

## Landscaping

We not only boost the amenity value of the facilities, but also seek to improve the environmental qualities and enhance energy performance of our buildings and facilities. A determined exercise has been embarked since 2001 to create pleasant outdoor spaces through utilising sustainable landscape practices on our amenities.



Transport Link in Tsim Sha Tsui East



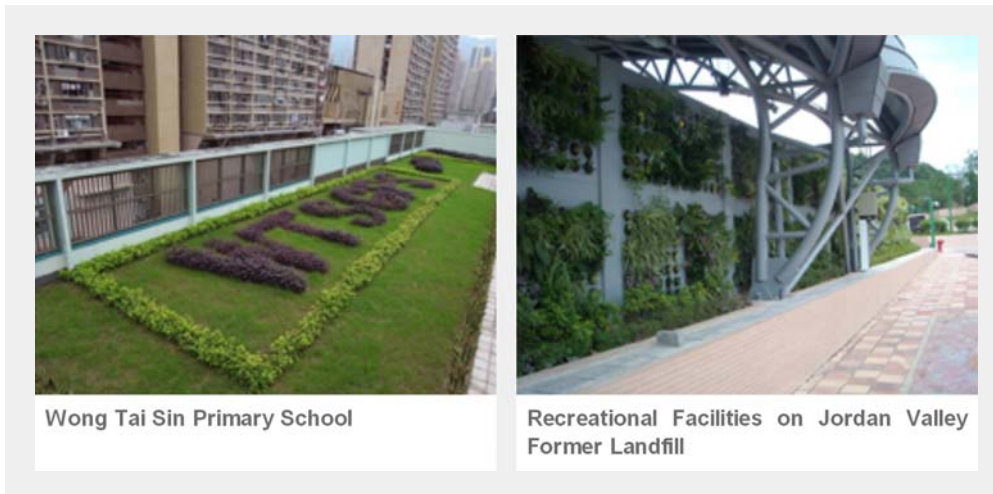
Rehabilitation Block at Tuen Mun Hospital Phase II

## Green Roofs and Vertical Greening

Green roofs and vertical greenings have had a profound effect on enhancing the energy performance of buildings and facilities such as significant reduction of U-value and heat. We continue to make significant advancement in our implementation of this initiative, and monitor the energy performance of buildings in many cases. Taking into consideration the findings of the green roof and vertical greening study, the following technical aspects have been taken into account before embracing the green features in new and existing buildings whenever practicable.

- Site characteristics
- Plant selection
- Maintenance considerations
- Plant life expectancy
- Specific functional requirements

In 2009, we successfully completed 21 green roof projects and 5 vertical greening projects.



## Tree Preservation

Tree preservation is an important part of our works projects, in particular for the Old and Valuable Trees (OVT) to which we accord high priority. A current example is *Ficus rumphii*, an OVT being protected within the construction site of the "Improvement Works for Mong Kok Stadium" project.

## Energy Consumption

We have been working to reduce our carbon footprint by reviewing our current practices and adopting pragmatic approaches into our operations. In line with our operation strategy, a suite of measures for housekeeping has been issued. These general green practices are provided to staff in work to implement sustainable operations in workplace, thus continually reduce our impacts on the surrounding.



We have demonstrated the desire to mitigate our contribution to climate change by formulating and optimising our long-term sustainable strategy. In 2009, 2 extra targets on energy saving have been introduced. We succeeded to replace the miniature tungsten lamps used as display light and spot light with energy efficient lamps in all new projects, while all new projects have used LED exit signs to reduce the electricity consumption in lighting.

Besides, we have monitored the fuel consumption used by our pool cars at QGO and APB Centre and have reported annual consumption of 12,042 litre and 5,194 litre, respectively. When comparing with 2008, there was 21.9 % and 7.9% increase correspondingly. The increase in fuel consumption was mainly attributed to the increase in projects and associated transportation needs.

## Resources Utilization and Conservation

### Funding and Support

Like every government department, our Capital Works Reserve Fund has been approved by the Legislative Council (LegCo) which is a statutory body for endorsing, monitoring and reviewing all the public funds.

The impacts of the uncertain economic environment have reflected specifically by the construction industry in 2008. Having supported the government policy to overcome this difficult circumstance, we focused on a more realistic and adaptive project framework in order to provide more job opportunities in the industry as much as we could. During 2009, we created 10,780 jobs for the construction industry with total of 47 new projects under the progress of economic recovery.

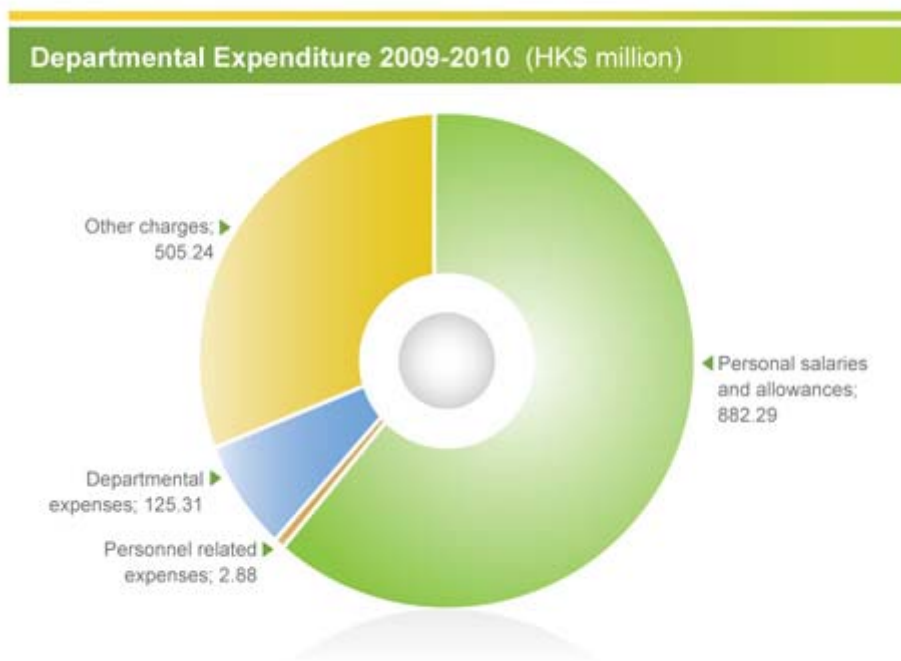
*Created 10,780 jobs for construction industry in 2009.*

We, as a member of the Government of HKSAR, are continuously investing considerable resources in developing public buildings and facilities, in which they do not generate quantifiable direct economic value.

### Departmental Expenditure

As outlined in the summary breakdown below, we have reported an overall 9%<sup>[1]</sup> increase in expenditure in fiscal year 2009-10 comparing with fiscal year 2008-09. The ArchSD Controlling Officer's Report of the 2009-10 Estimates of the Government of the HKSAR covers this information and is available online at [www.budget.gov.hk](http://www.budget.gov.hk).

### Departmental Expenditure 2009-2010

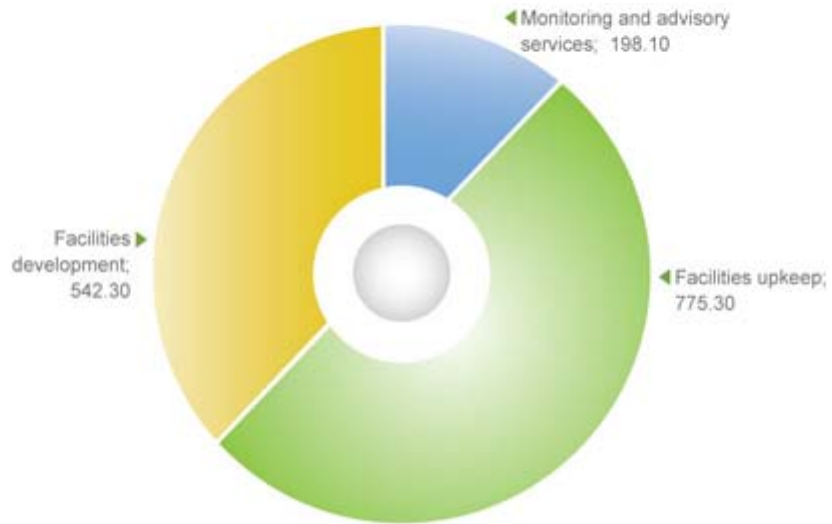


Reference: "Other charges refer to the maintenance of government buildings"

[1] The Departmental Expenditure 2009-2010 is HK\$1,515.72million, there is a 9% increase as comparing the Departmental Expenditure 2008-2009 of HK\$1,470.14million.

## Financial Provision by Programmes 2009-2010

Financial Provision by Programmes 2009-2010 (HK\$ million)



## **Environmental Design**

With the adequate economic support, we put more focus on ensuring the quality and sustainable development of public facilities. This was achieved by following the requirement stated in the General Specification for Building (GS 2007) and a series of General Specification for building services installations; and conducting more technical studies.

In 2009, we completed 4 technical information papers. They were related to volatile organic compound (VOC) paints procurement and application, sustainable timber and tensioned fabric. As a continuing effort to look for project improvement opportunities, 17 Technical Studies are still in-progress. In addition to the aforementioned technical information papers, ArchSD hosted 8 Technical Seminars in 2009 to share advanced technologies with the industry.

To drive towards a sustainable community and preserving natural resources, we are endeavoured to integrate sustainability principles into our building specifications. With an aim to reduce energy consumption in government buildings, we adopted various sustainable designs in our new buildings.



## Case Study of Environmental Design - Reprovisioning of Diamond Hill Crematorium

### **Project Description:**

The Reprovisioning of Diamond Hill Crematorium was accomplished in two phases to provide our community a dignified space to face the unavoidable moment. The project consisted of the construction of six cremators, four services halls and gardens of remembrance, installation of automatic coffin transportation system, the demolition of the existing crematorium, and other associated facilities. The crematorium has been sited along the landscape of the hillside so that the impact to the surrounding environment could be reduced. The plantrooms are located in the basement so that more space (including the podium top) could be free up for the gardens.

### **Design and Features:**

We integrated the concept of sustainability into this new Diamond Hill Crematorium during the design stage of the project. The following sustainability features were included in this calm and peaceful place:

- Admission of natural lighting from skylights and slit windows to create a soothing environment inside;
- The splendidly landscaped podium to provide a serene atmosphere with trees and climbers;
- Adaptation of the advanced state-of-the-art cremator to ensure the emission is in compliance with the relevant Environmental Protection Department's requirement; and
- Installation of green roofs on the service halls to lower the roof surface temperature and the air-conditioning load of the halls.



Courtyard of Diamond Hill Crematorium



Green roofs on the service halls



Vertical greening on the building

## Case Study of Environmental Design - Tseung Kwan O (TKO) Sports Ground

### **Project Description:**

To furnish the goal of hosting the 2009 East Asian Games with international standard arenas while addressing local needs, our project team has made efforts to build the new arenas with environmental responsive design.

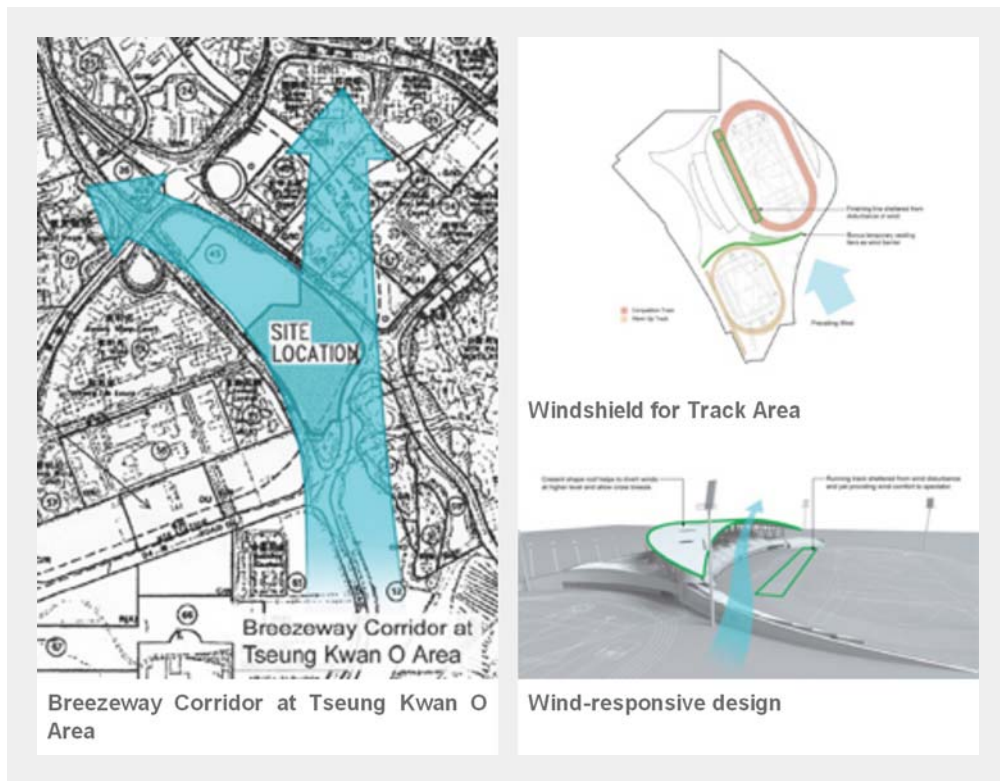
### **Design and Features:**

One of the new arenas, TKO Sports Ground, demonstrates our efforts in providing the community a pleasant place that is designed to harmonise with the environment through utilising local microclimate conditions. Some of the design features are highlighted below:

- The sports ground is orientated at an angle that slightly rotated towards the west direction to give more shading time to the football pitch. It softens the morning sun shining directly towards the spectators throughout the year;
- To maintain the visual openness and the breezeway corridor of the TKO area, the curvilinear metal roof has been carefully designed to give less resistance to air flow such that the wind is less interrupted; and
- To facilitate athletes to achieve international recognisable records, we ensure the sports ground meets the international standard on the level of wind disturbance to the track and field. Research was conducted to minimise the impacts brought by wind gust, therefore, the orientation of the sports ground has been rotated anticlockwise and the southern extended stand has stretched out to shield the track area from wind gust. The impacts of the wind gust have been examined by wind turbine test.



Admission of natural lighting from skylights



#### Comment from the Chinese University of Hong Kong

*"We believe that ArchSD should be a pioneer in sustainability building and design. ArchSD's devoted efforts in promoting sustainability building is well acknowledged by the university, and as such, we look forward to learn more practical examples of green building features from ArchSD. In additions, it is hoped that the university can gain more subvention support from ArchSD in our university's green building projects, so as to build a greener better environment for our students and staff."*

Mr. MA W.T, Michael  
Campus Development Office  
The Chinese University of Hong Kong

#### Our Response:

*Sharing our green building knowledge with stakeholders in construction industry is essential for building a greener Hong Kong. Throughout the years, our department has paid increasing attention on adopting green features in building design. In 2008, ArchSD has established a Green Building Committee to centralise and coordinate issues related to green buildings such as energy enhancement and building environmental performance assessment. Apart from releasing more information on our green initiatives, we will continue to share our works through various communication channels.*

**Comment from a Staff**

*"Being the leading professional services provider in Hong Kong community facilities and related matters, ArchSD should put more resources on conducting Technical Studies so as to maintain her leading position. The best practices and research findings can be shared with the industrial partners, which can benefit the industry and the public at large."*

Mr. CHAU Kwun-tong  
Staff

**Our Response:**

*Over the years, we had carried out Technical Studies on various green initiatives such as Green Procurement Guidelines - Low Volatile Organic Compound (VOC) paint, Guidelines for use of Sustainable Timber or Timber Products in ArchSD contracts, Particular Specification for Tensioned Fabric Structure, etc. We also shared our findings with the public through our website, Sustainability Reports, seminars, etc. We will continue to conduct Technical Studies as necessary and integrate their findings/recommendations into our project as appropriate.*

## Heritage Conservation

Heritage conservation requires specialised expertise and care because historic monuments are significant and invaluable heritage of our culture that are unbearable for any lost or irreversible damage.

Our Heritage Unit, established in 2008, provides a one-stop multi-disciplinary technical support to the Commissioner for Heritage's Office. It focuses on the cost effectiveness of projects initiated under the "Revitalising Historic Buildings through Partnership Scheme" by giving advices on the scope, feasibility, design standards, cost and selection of consultants and contractors.

The conversion of the historic Yau Ma Tei Theatre (YMTT) & the Red Brick Building (RBB) into a Xiqu Centre is a typical example to exhibit our contribution in revitalisation of government buildings. Further to the Heritage Impact Assessment conducted in mid 2008, we had identified possible impacts in formulating the preliminary design proposal and took mitigation measures to mitigate adverse effects. During the planning stage, we had closely communicated with the Cantonese Opera Advisory Committee and the Antiquities and Monuments Office to accommodate their interests and concerns in the design. This project stepped into the construction phase in 2009.



Small area of the brickwork was restored to evaluate the condition of the brickwork. (Yau Ma Tei Theatre Red Brick Building)

## Case study of Heritage Conservation - Renovation of Fair Face Red Brick Façade at Quarantine Depot, Tokawan

### ***Project Description:***

The Ex-Ma Tau Kok Animal Quarantine Depot was built in 1908 and was used as a cattle quarantine and slaughter centre for more than 90 years. The depot was closed down in 1999 and was converted to Cattle Depot Artist Village in 2001.

It is the only surviving pre-war cattle slaughterhouse premise in Hong Kong. The complex displays the Victorian arts and crafts style farm buildings, which consists of brickwork façade, voussoured segmental arches, bricked chimneys, double-roll Chinese tiled roofs and Dutch gables. Fair face red brick façade is one of the major characters contributes to the cultural significance of the place.



Fair Face Red Brick Façade

Over the time, exposure to natural weathering and in-service 'wear and tear' were believed as the cause of deterioration of the lime-based brickwork façade. However, detail investigation and laboratory analysis revealed that the main decay mechanism, salt crystallization, attributed to non-breathing repair material applied over decades. Desalination process was therefore included in the works specification.

Renovation works was all completed in accordance with the fundamental conservation principles of Burra Charter and the China Principles. Dentist piece-in with the original bricks, mortar mix and traditional technology was adopted to ensure minimum intervention. All technical measures taken were well documented and archived.



Before Renovation



After Renovation

## Green Purchasing

Exercising responsible stewardship to the environment is one of the crucial components in our sustainability framework. We had made progress on our goal to minimise our demand on forests, in principle which was in line with the Government Policy. To ensure our consumptions on wood and its products were in compliance with our procurement policies and guidelines for the supply chain, we worked in partnership with our suppliers to encourage them to adopt sustainable forestry practices in their operation.

We made efforts to eliminate our impacts on forests by maximising the use of recycled paper in our purchases of paper products. In 2009, our recycled A3 & A4 paper purchased was 22,715 reams in total which was 99.02% of the total purchased paper (i.e. 22,940 reams).

Timber plays an integral part in the construction industry. Owing to the significant impacts of the production and manufacture of timber-based products on the environment, in our latest General Specification, we would accept sustainable timber and timber products either from responsibly managed forests or plantations certified by Forest Stewardship Council (FSC), known licensed sources or sources in the progress to creditable certification.

In addition to tracking the origin of the material used for construction, we carried out a two-stage study aiming to assess our current practice in timber procurement. Stage 1 was completed in February 2009, whilst Stage 2 was in progress. The findings obtained from the study would later be served as reference to rectify our current purchasing practices.



Use of FSC timber at Tamar Project



## **Reuse and Recycling**

### **Construction Waste Management**

Waste management is a critical part of our operation cycle and corresponding activities on site. We have put our efforts on planning and implementing appropriate waste management strategies to our projects with a view to minimize construction waste that were generated and disposed of to public fills and landfills and to maximize material reusability.

As the capacities of the present public fills and landfills are decreasing, we have put more efforts on encouraging our contractors to reduce, reuse and recycle both inert and non-inert construction waste generated. In order to encourage contractor to be considerate in waste management, we have put more emphasis on their waste management plans and environmentally friendly policies when assessing their environmental performance in our annual Green Contractor Award Scheme.

In 2009, few of our construction projects were expected to generate more than 50,000m<sup>3</sup> of construction waste during construction. Following the guidance of the Development Bureau, the project officers had prepared detailed Construction & Demolition Material Management Plans for these projects. These Plans were endorsed by the Construction & Demolition Material Vetting Committee of ArchSD and subsequently implemented to ensure that the construction waste generation were managed appropriately and any reusable/recyclable material was utilized.

## Case Study of Construction Waste Management - Tamar Development Project

### **Project Description:**

This Project covers design and construction of a complex in Tamar which composing of a central government office block, a Legislative Council chamber, an open space and 2 elevated walkways.



System Formwork

### **Construction Waste Management:**

Being the ArchSD Green Contractor Award, Gammon - Hip Hing Joint Venture has showcased the good waste management practices at the Tamar Development Project.

- Use of durable/reusable System Formwork;
- Reuse of treated contaminated soil as filling material; and
- Reuse of about 77,300m<sup>3</sup> surplus excavated inert construction waste (about 26% of total anticipated construction wastes) in other construction sites, therefore, at the same time reducing the burden at the public fills.



Onsite waste sorting



Reuse treated contaminated soil

## Architectural Services Department - Sustainability Report 2010 - Resources Utilization and Conservation

To technically support the idea of reuse and recycle, we dedicated our efforts to study the reusability of inert construction waste. The study on the use of Grade 200 recycled aggregate supplied from Tseung Kwan O Area 137 Fill Bank as hardcore in building works had been completed. After that, the corresponding Particular Specification, which detailed the technical and logistics requirements, had been issued and incorporated into the contract documents of projects that followed. Another study on the use of Grade 200 recycled aggregate as the granular bedding material for underground drainage construction had commenced.

We recognise that one of the reasons for larger proportion of construction waste being disposed to landfills lies in the constant accession of our construction sites since 2006. To address this, we had implemented effective environmental initiatives which had succeeded in increasing the proportion of construction waste being disposed to public fill areas rather than to landfills over the past 6 years.

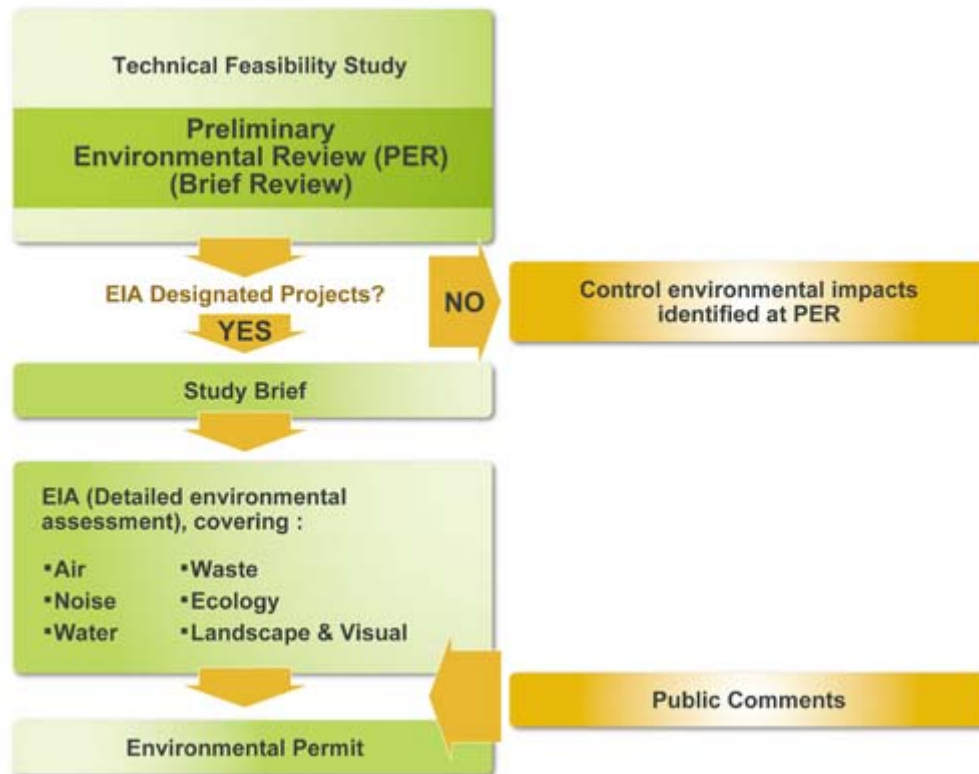


## Water Recycling

We had tested out the feasibility of rainwater recycling installations with some of the buildings type such as sportgrounds, parks and swimming pools. To expand this sustainable idea, we have included the provision of rainwater recycling system in almost all our new projects, especially for leisure and cultural project such as open space, stadium, swimming pool, etc. Some of the examples are the Tamar Development Project, Redevelopment of Kwun Tong Swimming Pool Complex and Kwun Tong Recreation Ground.

## Project Environmental Assessment

Since some of the projects may have significant impacts on the environment, ArchSD would carefully consider these environmental issues, starting from the design and planning stages of new public works projects. During the Technical Feasibility Stage, we have to carry out a Preliminary Environmental Review to identify all the environmental concerns for the project. The Review would determine whether a comprehensive Environmental Impact Assessment (EIA) would be needed in compliance with the Environmental Impact Assessment Ordinance (EIAO). An EIA submission would be required for all projects classified as "designated projects" under the EIAO. After all the relevant issues have been addressed raised during the Public Consultation, the Environmental Protection Department will issue an Environmental Permit for construction or/and operation.



Environmental Assessment for Designated Projects

In 2009, two of our new projects were designated projects. They are:

- Reuse of Treated Sewage Effluent from Redeveloped Lo Wu Correctional Institution
- Provision of a Poultry Slaughtering Centre (PSC) in Sheung Shui

Under the EIAO, the environmental impacts of the Treated Sewage Effluent Reuse project were categorised as less significant. Upon the submission of Project Profile, Environmental Permit was immediately issued under certain conditions.

As for the PSC, an EIA Study was required, which assessed the potential environmental impacts (including air quality, noise, water quality, waste management, land contamination, human health risk, landscape and visual) that associated with the construction and operation of the PSC. After public consultation, Environmental Permits for the Construction and Operation were issued.

Details of these environmental impact assessment results can be found at [EIAO Register](#).

## Human Resources

### Staff Engagement

We continue to maintain a harmonious atmosphere to foster our relationship with staff through various communication channels and engagement programmes. We substantially optimise the constructive dialogues to engage with them. This enhances our overall productivity and also reinforces the sense of belonging of staff, therefore, helps to retain talented staff.

We have made efforts to encourage two-way communications between our staff and management through Departmental Consultative Committee. Through these occasions, we can gather staff ideas and feedbacks. Complying with the Hong Kong Employment Ordinance, we fully support our staff to join any employee-based associations.

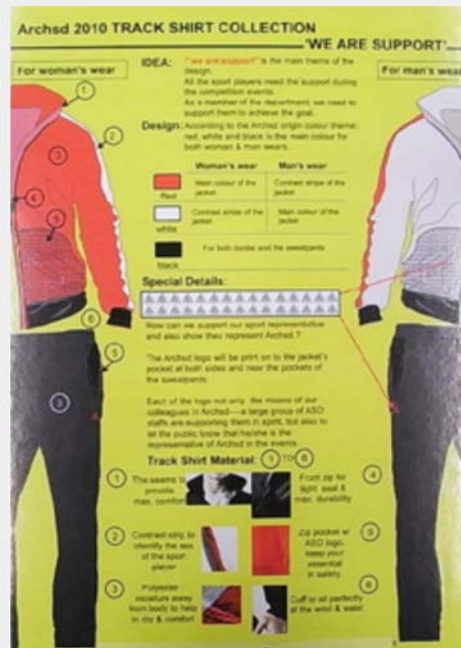
There are a total of 9 staff unions within the ArchSD Staff Association. Around 23% of our staff is members of the Association. Activities organised by the Association are open to all staff, their families and the retired colleagues. In 2009, the Association organized and participated in various staff engagement activities under the Staff Motivation Scheme.

### Staff Motivation Scheme

To enhance our staff's productivity and reinforce the sense of belonging of our staff, we have organised the annual Staff Motivation Scheme since 1993. Under this scheme, there were a total of 8 competitions/events organised in 2009/10. Below are some of the competitions/events highlights:



Winner of the event "Green-through photography"



Winner of the Track Suit Design Competition



Staff Motivation Scheme 2009 Award Presentation

### Staff Recreational Activity

Throughout the year, various sports and recreational activities are arranged to maintain good staff relationships and to encourage a healthy work-life balance.

#### Table Tennis Competition

The inter-branch table tennis competition was held in January 2009. About 50 staff took part in the competition with their families. Our former director, Mr Yue Chi Hang JP, was also taking part in the competition. The event provided a great opportunity for staff to share the fond leisure time with their families and to reunite with their former colleagues.



### **Dragon Boat Competition**

Around 50 of our staff participated for the Dragon Boat Competition held in June - July 2009. To be well anticipated for the competition, we started the training in early 2009. Although we did not win the competition, we had built a good spirits among the team members.



### **Annual Dinner 2009**

All of our staff was invited to the Annual Dinner in March 2009, which aimed to connect the top management and our staff.



#### **Comment from a Staff Association**

*"Maintaining a good staff relationship is of crucial importance in motivating staff to deliver works of outstanding quality. We would be more than happy to see our department initiates more channels to listen and response to our thoughts and opinions."*

Mr. CHUNG Ping-Wah  
Chairperson  
Hong Kong Chinese Civil Servants' Association

#### **Our Response:**

*We understand the importance of providing a harmonious and pleasant working environment to our staff. In the previous years, we have enhanced the two-way interaction between top management and staff. To further strengthen our works in fostering staff relationship, we encourage more communications through both the formal and the informal channels.*

## Staff Development

Professionalism, devotion and participation of staff are the cornerstone for the success of an organisation. We always nourish and nurture our staff to further expand their competencies and skills to deliver professional and quality services to our clients.

The Integrated Management System (IMS) comprehends on-going training opportunities for our staff to equip with basic to advanced technical skills, contemporary professional knowledge and also health and safety tips. In 2009, a total of 148 training courses had been organised, 24,808 training hours had been recorded and the average training time per employee was about 14 hours.

Examples of the training courses held in 2009:

- IMS Internal Auditor Training
- Workshop on Construction Project Management
- Workshop on Heritage and Conservation
- Basic Accident Prevention
- Occupational Safety and Health Management
- Workshop on Strategy Formulation and Alignment
- Team Building
- Performance Management for Professional, Technical and Site Supervisory Staff
- National Studies Training Programme

Distribution of training hours in various training types:

Training Type	No. of trainees	No. of training hours
Leadership & Management	13	987
Professional & Vocational	3,998	20,207
Career Development	449	3,614





## Health and Safety

Health and safety of our staff and site workers are of our priority. We strictly execute the statutory health and safety policies and promote safety message regularly in the working environment.

To develop the health and safety culture in the working environment among ourselves and contractors, our Departmental Safety and Environmental Advisory Units (DSEAU) provides advisory services on affairs relating to health, safety and environmental protection on sites.

DSEAU would monitor the performance of contractors in various construction stages by carrying out independent site assessments, promoting health, safety and environmental protection messages on construction sites and collaborating with other government departments / organisations to mitigate disturbance that might be caused. It also undertakes the coordination and arrangement of safety trainings for in-house project staff.



Site safety inspection for mechanical plant



Site safety inspection for lifting plant



Site safety promotion by contractors

## Occupational Health and Safety (OHS)

Since granted the certification of OHSAS 18001:2007 in October 2007, we set up a framework of health and safety management in accordance with the standard. We worked closely with staff to integrate a responsible Occupational Health and Safety (OHS) approach into our daily operations and made every effort to pursue for improvement.

We regularly organise management committee meetings to communicate with our staff on the OHS approach and to monitor our OHS performance. Nominating the OHS representatives from different levels of staff and their delegates who would engage in periodical OHS walks, we assemble immediate feedback on the feasibility and practicability of any improvement plans. Their delegations achieve compliance of OHS requirements in workplaces and thus effectively optimise our OHS system.

In mid-2009, we have further established a special taskforce to conduct an internal satisfaction survey on OHS to all staff. Findings were valuable in enriching and improving the existing system.

## Site Safety Promotion by ArchSD

In order to capitalize our previous success in Health and Safety, we continued actively to promote site safety and environmental protection. The construction wits competition was continuously held again in 2009. A total of 33 construction wit posters of good practices in site safety and environmental protection had been designed and submitted by our staff. These posters had been uploaded onto the Intranet for promotion, and sharing. 10 of the submitted were selected as winners.



The use of precast concrete slabs on site as the temporary hard paving was continuously promoted. 10 contracts were selected for mandatory implementation. The hard paving helped to enhance site housekeeping as well as for dust suppression.





The implementation of Construction Design & Management in our contracts was expanded to include 6 more contracts to totalling 21 contracts to practice in 2009.

### **Safety Training for Contractors and Consultants**

We emphasise site safety to contractors through conducting a series of training on audit checks. These targets to assure their compliance to provide sufficient safety and environmental trainings for site management and supervisory staff mandated as the contractual requirements. Similar compliance checks were also conducted to check the compliance by consultants' site staff in receiving the stipulated safety trainings.

Safety briefings focused on our site safety and environmental supervision system had been arranged to consultant resident site staff & contractors' site staff. Experiences of contractors' safety practices and lessons learnt from site accidents had also been shared in these briefings.

### **Site Safety Promotion by Contractors**

In addition to voluntarily put Works Safety Behaviour observations and Safety Culture Index survey into their practices, many contractors have even implemented their own motivational schemes to nurture workers with safe work behaviour and redress the improper workers' works behaviour.

## Safety in Operating Lifting Equipment

Safety education and training on lifting equipment operation for all staff are of elemental importance on site operation. We continued to allocate our resources on providing the knowledge and practical skills for them. DSEAU had regularly monitored and provided safety advices during site inspection.

Guidelines on Safety of Tower Cranes, issued by the Construction Industry Council (CIC), were being promoted. Safety training had been offered to site supervisory staff to equip them with adequate knowledge to carrying out supervision properly. External safety trainings on tower crane operations with particular reference to erecting, telescoping, climbing and dismantling of tower crane were arranged for site supervisory staff to equip them with adequate knowledge to properly carrying out supervision.



Effective communication in lifting operation



Safety training on tower crane operations conducted by contractor



Checking the integrity of wire slings

## Additional Initiatives Relating to Site Safety

A number of health and safety measures have been implemented to promote the best practices and are listed as follows.

- Prevention of falling object - Guidelines had been issued to avoid falling objects while operating critical site lifting works or working at height.
- Safe use of working platform inside lift shaft - Practical guidelines had been set up for checking construction and safe use of working platform inside lift shaft.
- Supervision of high risk activities on construction sites - Existing guidance on supervising high risk activities on sites had been expanded to include the limiting of sub-contracting for high risk site activities, hierarchy of risk control and works associated with large steel gate.
- Site safety monitoring - the existing early warning system for monitoring site safety performance of contractors had been augmented to cover 6 more triggering conditions that indicating deteriorated safety performance of contractors.
- Construction waste management - Practical guidelines had been imposed to assist the checking of compliance in the management and disposal of construction waste by contractors.
- Safety and environmental training - The stipulated basic safety and environmental trainings had been extended to all grades of newly recruited project staff. It purposed to equip them with the necessary skills and knowledge to better respond to site safety and environmental protection matters.
- Construction site safety promotional kit – the promotional kit is a multimedia package with 2D/photo animations to illustrate the lessons learnt from examples of 10 serious site accidents in the past involving collapse of mechanical plant / working platform, fall of person from height, and striking of person by object. The animations examine the causes of these accidents and recommend correct precautionary actions to take to avoid similar types of accidents from occurring. The promotional kit has 2 versions of essentially the same contents. One is an internet version for internet self-learning ( with Chinese version only and titled as 《工地安全網上學習課程》). The other is a DVD version ( with Chinese version only and titled as 《工地安全重點提示》) for distribution to contractors. Contractors are encouraged to show the multimedia package to their site personnel for safety promotion.

## Clients and Business Partners

In delivering a quality service, we are convinced that regular communications with clients and business partners to address their concerns and to accelerate the reciprocal understanding can pave way for a smooth, harmonised and synergistic collaboration.

## Project Quality Management

We have endeavoured to meet the expectations of our clients with quality buildings and facilities through sustainable design and project management. Basing on best practical guidance, we monitored our performance and deliver high standard of workmanship. In 2009, 100% of capital and minor works projects were completed on schedule.

Our commitment in project quality management was also acknowledged by our clients and the public. 13% reduction in complaints was recorded and reported during 2009 as compared to 2008. ArchSD managed a response rate of 99.4% (351 out of 353) in replying all the complaints within 10 days.

## Client Satisfaction Survey (CSS)

We believe that clients' feedback on the quality of our performance is constructive for maintaining and improving the value of our services. Having conducted the CSS quarterly, we gather clients' comments on our sustainability performance. The CSS successfully demonstrates our proactive way in consolidating feedbacks from clients and induces us to strive for a recognisable acclaim of performance.

Among the 25 chosen projects for the survey, our overall performance attracted 100% scoring of the "satisfied level" or above rating. Substantial improvement in prompt communication with our clients had also been obtained. 92% of surveyed projects the project team managed in addressing the clients' concerns within 2 months of the Survey, while 75% of surveyed projects the project team managed in informing the clients of the final conclusion of CSS within 1 month after the final completion of all the follow up works.

***100% projects rated "Satisfied Level" or above  
in the Client Satisfaction Survey.***

We continued to seek improvement based on the valuable feedback acquired. There were some sub-topics, such as security, access and flow control & signage, contractor's response time, sanitary fittings etc. where the score were below "Dissatisfied level". The results indicated that there is room for improvement in these areas. Remedial actions and proper initiatives have been taken immediately to ensure our sustainable operations in the long-run.

## Post Occupancy Evaluation (POE)

Our service to clients was not only limited to the handover stages of the projects. We had exercised a tailor-made management tool, POE, on our projects after tenant occupancy to evaluate the actual performance of the building/facilities, to assess the effectiveness of the building/facilities and services systems, as well as to identify ways for improvement. These POE exercises also served to smooth the handover of the building/facilities to the end users and maintenance parties. This includes:

- Continuous stakeholder engagement;
- Affirmation of the function that fits the original design intent and comprehensive utilisation of the building systems;
- Fine tuning the service of systems to meet users' operational needs; and
- Conduction of energy review to enhance energy efficiency and conservation and to recommend good energy saving housekeeping practices.

Towards the end of 2008, we employed a consultant to continually review and revise, whatever necessary, the scope of our POE. This was done by assessing both technical and user impacts of a building/facilities in accordance with BSB Circular No.3 of 2005 and No. 25 of 2006. The application of POE exercises provided us the insight of the interaction between the client's operation and the building systems. The evaluations not only provided us with valuable information on the building system, but also the understanding of the client's operation philosophy. Hence, all these information and knowledge would be ready in our future sustainable development.

## Case Study of POE - ICAC Headquarters

### **Project Description:**

The establishment of POE exercise comprises 3 stages namely Operational Performance Monitoring and Handover, Energy Review, and Specific System Evaluation. It was commenced 2 months after the occupation of the ICAC Headquarters.



ICAC Headquarters

### **Green Features and Improvement:**

Appropriate actions for improving the building performance have been identified and carried out to accommodate the actual and latest operational needs. In addition to grant an "Excellent Class" of IAQ certificates in October 2008, the building has also undergone various improvement works on account of the POE findings, which were listed as follows:

- Modification of A/C zoning control for Variable Air Volume (VAV);
- Plant room safety and Operation & Management (O&M) facilities;
- Summation metering on electrical supply;
- Replacement of exit sign to LED type; and
- Installations of solar film.

During the Stage of Energy Review, major causes of high electricity consumption of the building were identified. The POE members subsequently recommended measures like the adoption of a new on/off schedule of lighting and A/C systems which resulted in lowering the annual electricity consumption by 23% from 2007/08 to 2008/09, corresponding to about 3,036,928 kg CO<sub>2</sub> reduction.

## Indoor Air Quality

As an added value service to our clients in providing a sound and healthy working environment, two of our buildings received the IAQ certificates of Good Class in 2009. They are the Interim Hong Kong Planning and Infrastructure Exhibition Gallery and the Office areas on 4/F to 9/F (Except 7/F BoldBlock) of APB Centre.



## Supply Chain Management

Realising our influencing power to the sustainable development of the construction industry in Hong Kong, we worked proactively with suppliers, contractors and consultants to incorporate sustainable elements into their business processes.

We adopted a tender assessment approach to further encourage our contractors to approach sustainability and embrace continuous improvement in their performance. The environmental and site safety aspects of a tenderer's past performance would be taken into consideration during the tender selection process. For those score the highest in their sustainability performance would be more favourable in the tender selection.

For appointment of consultants, we follow the Architectural and Associated Consultants Selection Board (AACSB) Handbook in selecting, appointing and administrating our architectural and associated consultants from 6 categories, namely Architectural, Building Services, Building Surveying, Landscape Architectural, Quantity Surveying and Structural Engineering.

We aim to demonstrate responsible and ethical supply chain policy with fairness and transparency. We have no inclination to local or overseas contractors and suppliers, as we treat all equally during the selection process.

### Contractor Awards

Our contractors are keenly participating in site safety promotional schemes organised by DEVB and us. They are the Considerate Contractors Site Award Scheme (CCSAS), Green Contractor Award Scheme and the Site Safety Model Worker Award Scheme (SSMWAS).

### Considerate Contractors Site Award Scheme (CCSAS)

A total of 22 contracts joined CCSAS in 2009. This award scheme aims to encourage contractors to work responsibly and considerately by providing a safe and healthy workplace to the construction site workers.



Bronze OEMPA and Gold CCSA (Public Works - New Works) for Contract No. SS P318 - Design and Construction of Tamar Development Project  
Winner: Gammon - Hip Hing Joint Venture



Silver OEMPA and Merit CCSA (Public Works - New Works) for Contract No. SS S317 - Construction of Siu Sai Wan Complex  
Winner: China State Construction Engineering (Hong Kong) Ltd.



Merit OEMPA and Merit CCSA (Public Works - New Works) for Contract No. SS S311 - Construction of Sun Yat Sen Memorial Park and Swimming Pool Complex  
Winner: China State Construction Engineering (Hong Kong) Ltd.

**Quote from a contractor:**

*"We appreciate the initiatives implemented by ArchSD on green building and health and safety for the construction industry. Acknowledged that ArchSD has developed a Departmental Business Plan for building a better Hong Kong, we are interested to be acquainted with more information of ArchSD's new direction and partner with ArchSD for building a better Hong Kong."*

Mr. Derek CHU  
Assistant General Manager of Building  
Construction Department of China State Construction Engineering Hong Kong Limited (CSHK)

**Our Response:**

*In formulate the draft of the Departmental Business Plan (DBP), one of the objectives is to enhance partnership and collaboration with our stakeholders. In our re-structuring under the DBP, we are not only sharing our vision, our mission, our values and our works, we also aim to interact with the stakeholders through open communication for sincere sharing and mutual understanding.*

## Green Contractor Award Scheme

The annual Green Contractor Award Scheme intends to encourage qualified contractors to sustainably improve their high levels of social and environmental practices on construction sites and to deliver outstanding sustainable performance of construction. The competition was opened to all of our projects that were under construction in 2009, including maintenance projects with contract sums over HK\$21 millions. Contractors whose contracts had scored the highest with respect to environmental performance were prized for the Award.



**Gold Award**  
Gammon - Hip Hing Joint Venture  
Design and Construction of Tamar  
Development Project, Hong Kong  
[Contract No. SS P318]



**Silver Award**  
Hip Hing - Chun Wo Joint Venture  
Design and Construction of Expansion of  
Tseung Kwan O Hospital  
[Contract No. SS S328]



**Bronze Award**  
Techoy Construction Company Limited  
The Construction of a Secondary School  
at Development near Choi Wan Road and  
Jordan Valley, Kwun Tong  
[Contract No. SS T304]



**Term Contract Award**  
Wan Chung Construction Company  
Limited  
Maintenance Term Contract Wanchai  
(South) and Wanchai (North)  
[Contract No. TC R021]

Through the Scheme, these green contractors demonstrated good site practices in the industry. They set good examples for other contractors to pursue.

### Air

- Sprinkler to suppress dust
- Automatic Watering System at Concrete Breaking



**Water**

- Wastewater Treatment Plant



**Waste Management**

- Use of durable/reusable FSC Timber and System Formwork
- On-site Waste Sorting for Re-use and Recycle
- Reuse Inert Construction Waste collected from Other Construction Sites



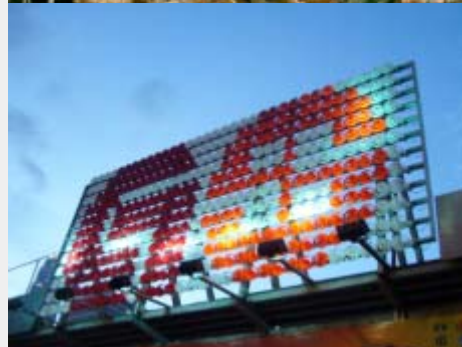
**Noise**

- Adopting Noise Mitigation Measures when doing Noisy Works
- Use of low noise QPME Generator



**Renewable Energy**

- Mini Wind Turbine
- Solar Panel



**Greening**

- Vertical greening



## Site Safety Model Worker Award Scheme (SSMWAS)

In 2009, 37 active contracts took part in SSMWAS. The active participation by contractors in these schemes effectively promoted site safety, increased their workers' safety & environmental awareness and rewarded those who demonstrated good site performance.



Award for Site Safety Model Worker



Award for Site Safety Model Worker



Award for Site Safety Model Worker

### Comment from a Quantity Surveyor member

*"We are glad to witness the gradual improvement of ArchSD's sustainability performances, and to exchange our views through various engagement channels. We are eager to learn more examples from ArchSD in supply chain management and green procurement practice. We strongly believe that ArchSD is an important public sector in facilitating the development of quantity surveying"*

Mr. WONG Mickey

The Hong Kong Institute of Surveyors (HKIS) - Quantity Surveying Division

### Our Response:

*We are dedicated to engage in more experience sharing sessions with the HKIS and, in particular, with newly recruited quantity surveyors. Quantity surveyors are welcome to exchange their views on sustainable development with us. In this Report, we discuss about the green procurement practices, such as purchasing of sustainable timber and incorporation of green building features in the design. We intend to encourage the adaptation of ArchSD's best practices in supply chain management and green procurement in all ArchSD projects.*

## Experience Sharing

ArchSD participates in the local and international sustainability initiatives such as Source Separation Programme of Commercial and Industrial Waste, Clean Air Charter in Hong Kong and Global Reporting Initiative in the Netherlands. Also, engaging actively in the latest development in the building industry, ArchSD maintained memberships with the following professional organisations:

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

Building a green future requires the collaborative effort of the whole construction industry, we have continued to engage with the industry partners to share views and keep close to the market trend. In 2009, we have participated in 61 public events to connect with the industry, business partner, the community and other interested parties. Some of the public events are listed below:

- Exhibition in EXPO Pavilion Design Exhibition organised by Shanghai Expo Bureau in Shanghai;
- Presentation to the Chongqing Municipal Construction Commission on the design of Tamar Development Project;
- Prize presentation and Exhibition Opening Ceremony of the HKIA Annual Awards 2008;
- Talk on "Experience in Sustainable Development of Green Government Buildings in Hong Kong" in Eco Asia Conference;
- Talks on Holistic Approach in Delivering Government Buildings - The Low Carbon Concept in an International Conference on Planning for Low Carbon Cities organised by the Hong Kong Institute of Planner;
- The opening ceremony of Tseung Kwan O Sports Ground cum 200-day Countdown to Hong Kong 2009 East Asian Games;
- Topping out ceremony of the Lo Wu Correctional Institution; and
- UNESCO Heritage Awards Exhibition.



Prize presentation and Exhibition Opening Ceremony of the HKIA Annual Awards 2008 at the Two Pacific Place, Queensway in May 2009.



Our Director attended the topping out ceremony of the Lo Wu Correctional Institution in August 2009.



Presentation on the function and organisation of ArchSD and the design of Tamar Development Project to the Chongqing Municipal Construction Commission.



Seminar on greening for interested parties such as professional institutes, property management companies and owners' corporations.

## Community

### Community Support

In view of the steady recovery of the global economic environment, the Government has proactively and strongly supported the construction industry to lessen the economic tension by launching different mega projects and the continual of a spectrum of capital works.

#### Job Creation

During 2009, we have done commendable works to improve existing sports centres and to equip for the East Asian Games. Continuation of our construction works on the Tamar Development Project and launching of several large-scale projects (such as Kai Tak Cruise Terminal Development of North Lantau Hospital Phase I, etc.) have created 10,780 job opportunities to alleviate the traumatic economic situation.

#### Community Friendly Design

Apart from job creation, we also facilitated the better development of the community through well-designed and well-constructed buildings/facilities.

### Case Study of Community Support - ICAC Headquarters

#### **Project Description:**

The erection of the ICAC Headquarters benefited individual divisions and also made constructive contribution to the community.



ICAC Headquarters



**Design and Features:**

To improve the accessibility of the ICAC Headquarters and to enhance the image of integrity, fairness and righteousness of the ICAC, several practical initiatives have been undertaken to provide the local community a joyful environment to live in. Just like:

- Upgrading works to the existing Man Hong Street Playground alongside the building;
- Dedicate more spaces in the site for public access; and
- Widening the pedestrian walkway along Java Road by opening up an area of approximately 232m<sup>2</sup> with improvement to the streetscape.

## Universal Accessibility

Being the workagent for the delivery of public buildings/facilities, we will meet the statutory requirements on barrier free access in implementing new projects and wherever practicable, adopt the design approach of Universal Accessibility to achieve design standards beyond the statutory requirements.

### Case Study of Universal Accessibility - Tseung Kwan O (TKO) Sports Ground

**Project Description:**

With an aim to cultivate the sporting culture and encourage participation of the local community, the TKO Sports Ground was designed to demonstrate good practices of universal accessibility.



Tseung Kwan O (TKO) Sports Ground



**Design and Features:**

A few eminent features are listed as follows:

- Wheelchair spaces at the spectator and media areas;
- Visual display board and Braille;
- Sanitary provisions including baby care rooms;
- Accessible toilets and changing facilities;
- Common corridors leading to public facilities;
- Public service counters for wheelchairs users;
- Lifts designed for barrier free access; and
- Tactile map and guide path.

## Case Study of Community Engagement - Centre for Youth Development at Chai Wan

### **Project Description:**

The Centre for Youth Development is a fine example of the collaborative efforts between the government and architectural intellectuals.



Centre for Youth Development at Chai Wan

### **Design and Features:**

The winning-scheme received first prize in the design competition organized by HKIA and HAB in 2000. The design proposal is an antithesis to the early prototype of the cookie-cutter repetitiveness in building design, and attempts to look for other architectural possibilities through study and reflection, thereby encouraging youths to explore the unknown. The Centre includes a 660-seat auditorium, 1,200 square meter exhibition platform, multi-purpose halls for retail, arts and youth development, and an international youth hostel housing 150 suites.

## Local Community Engagement

To stimulate the landscape greening in our society, ArchSD have organised community planting activities near our project sites. In 2009, two of the examples were Tseung Kwan O Sports Ground and Sun Yat Sen Memorial Park.



Sun Yat Sen Memorial Park community planting



Tseung Kwan O Sports Ground community planting

## Contractors Community Engagement

Adhering to our obligations of being reciprocal to the community, some of our contractors have also taken the initiative to participate in all kinds of community engagement activities for the benefit of the needed.

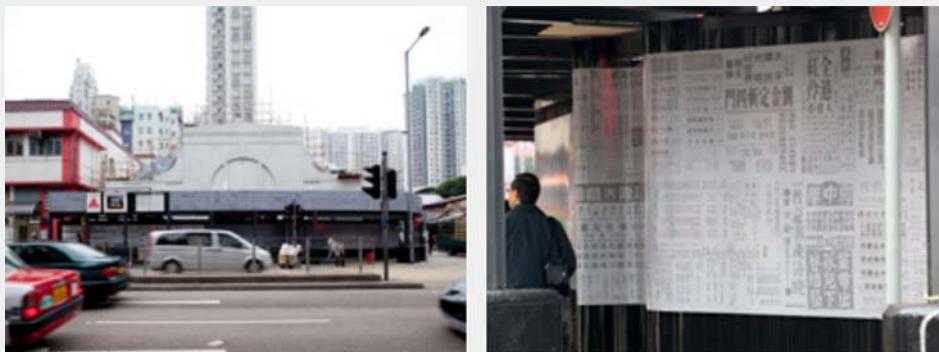
## Hoarding Beautification

A good example of demonstrating corporate citizenship of our contractors is displaying the works of the hoarding painting competition organised by the Eastern District Office in associate with local community groups in 2009. Works were placed on the construction sites to raise the awareness of the community.



Construction site of Siu Sai Wan building complex

Apart from the Eastern District, contractor of the Yau Ma Tei Theatre have also engaged with the neighbourhood parties to beautify the construction site.



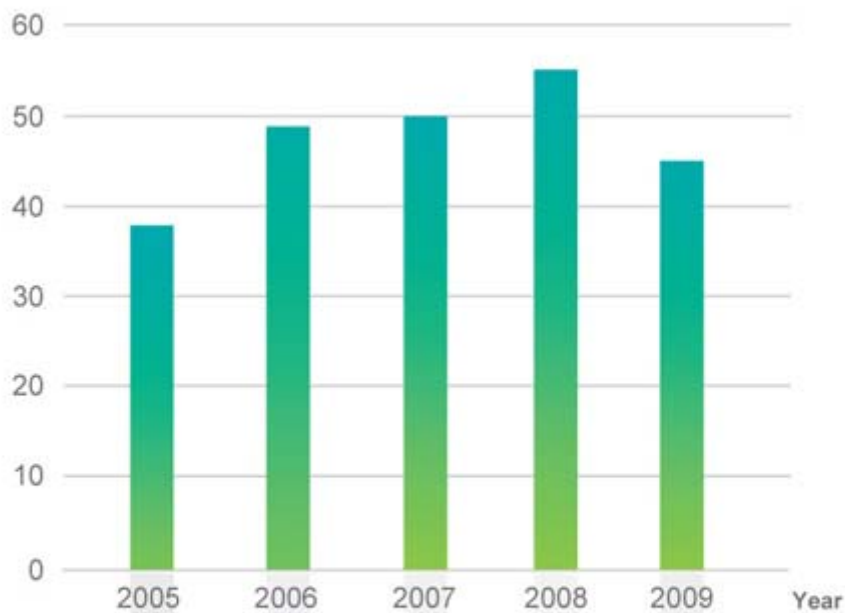
Hoarding painting on the site for Yau Ma Tei Theatre

## Community Services

We care for our community in the expanse of contributing our time and efforts in voluntary activities. This year, the Volunteer Movement awarded our ArchSD Volunteer Services Team once again with the Gold Award for Volunteer Service.

In 2009, the ArchSD Volunteer Service Team served the community for over 2,000 hours through participating in 44 events. They included organising performances, birthday celebrations and games in the elderly homes and rehabilitation centres, making beautiful handmade handicrafts as gifts for the inhabitants, conducting Tai-chi classes for the underprivileged, and renovating the homes of singleton elderly.

### Number of Voluntary Projects Completed



Renovating the homes of singleton elderly in collaboration with Tung Wah Group of Hospitals

## Chinese Opera

Another community service highlight was the "Mid-autumn Festival Celebration". This event was organised by St. James' Settlement on 27 September 2009 at Leighton Hill Community Hall. The programme included Chinese opera performances and providing gifts to old folks who live in Wanchai District. In that event, our colleagues performed an excerpt from the Cantonese opera called "Romance of the Phoenix Chamber 鳳閣恩仇未了情".



Cantonese opera performance by ArchSD colleague

## Heritage Conservation Promotion

To enhance the understanding of the history and culture of Hong Kong, we believe that it is essential to cultivate the interest of our young generations on the heritage conservation. One of the most effective ways for school children to learn the early history is to share our knowledge and let them experience through fieldtrips to where the heritage and monuments are located.

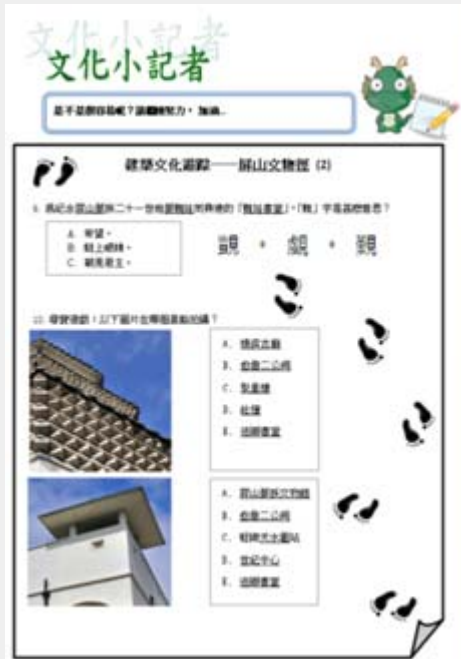
In December 2009, our volunteering team organised an educational activity called 'Ping Shan Heritage Trail'. The purpose was to provide a learning platform for the youngster to get a general idea on the Ping Shan heritage conservation works. Over 170 students, parents and teachers participated in the visit to the Tang Clan of Ping Shan. Our volunteering team shared their technical knowledge with the students and teachers throughout the guided tours and interactive games. Their zealous participation hopefully aroused their consciousness to protect the historic assets in the future.



Guided Tour for Student Visit at the Ping Shan Heritage



Students actively participated in the Questions and Answers Sections about Ping Shan Heritage Conservation



Quiz of Ping Shan Heritage for deepening students' understanding of the architectural development of the past.

### Teaching Kits

Towards the end of 2009, the Development Bureau requested ArchSD to develop a set of teaching kits, of the good practices using in the Government projects, to secondary schools students as education material for the liberal study. ArchSD engaged consultants to develop and produce 3 nos. of teaching kits on topics of "Cultural Heritage and Build Environment", "Sustainable Design for Buildings" and "Understanding the Building Process and Teamwork". We will report in details of these teaching kits in the next report.

## Moving Forward

### Mega Projects

We will continue to improve the sustainability performance of the government buildings/facilities by applying innovative ideas in our projects during design and construction stages. Some of the remarkable projects of the coming year are shown as follows:

#### Cruise Terminal

To develop Hong Kong into a leading regional cruise hub, a new cruise terminal with a construction floor area of 143,600 square metres is being constructed in the southern end of the former runway of the Kai Tak District. It is designed to be highly functional and efficient, which facilitating the operator to provide world-class services to 3,000 cruise passenger per hour. It has also adopted a sustainable building design approach considering environmental features such as skylit atria to let in natural daylight and let out exhaust from vehicles, photovoltaic panels, solar hot water system and rainwater and air-conditioning condensate water recycling for irrigation purpose. The construction works has been commenced in May 2010 and the first berth is expected to be opened in June 2013.



The artist's impression of Cruise Terminal building



The artist's impression of Immigration Hall



## Tamar Development Project

Being one of the significant government projects, Tamar Development Project includes the construction of the Central Government Complex, the Legislative Council Complex and an open space of no less than 2 hectares, 2 covered pedestrian footbridges and other ancillary facilities.



Tamar Development Project

The design of the whole Tamar development is based on the principle of sustainability, adaptive to changes, responsive to the environment, and committed to putting concepts of environmental friendliness in practice. An extensive variety of environmental and energy conservation measures is featured so as to conserve energy, and minimise pollution and waste. The buildings are well designed and oriented to maintain good air ventilation in the area and to enhance the visual permeability through the site. With incorporation of various environmental-friendly features as well as application of contemporary renewable technologies, including high energy efficient sea-water cooled chiller plants, green roof, photovoltaic panels, computerized lighting controls, energy efficient LED lighting, solar hot water system, light pipe, rainwater recycling, etc. the project is expected to achieve the highest rating, i.e. Platinum, under the Hong Kong Building Environment Assessment Method (BEAM). All in all, the Tamar Development Project is the paragon of green government offices at the time of its commissioning.

Since the launch of construction work of the Tamar Development Project in February 2008, several cornerstones such as design development and superstructure works has been accomplished. The project is generally on schedule and is expected to be completed in mid 2011.

## Civil Aviation Department (CAD) Development Project

To retain the sustainable growth of the air traffic industry, we assist the CAD to develop the new CAD Headquarters (HQ). The CAD HQ building of construction floor area of 65,000 m<sup>2</sup> is designed to accommodate the CAD function divisions, Air Traffic Control Centre and the antenna farm. It adopted the design-and-build approach to increase the efficiency of the whole construction process. Green features such as 140m<sup>2</sup> photovoltaic panels, 6 solar lighting collectors with fibre-optics solar tracking system, collection of rainwater and condensate water from air-conditioning for irrigation purpose, vertical greening, green roof and green podium are installed to enhance the energy efficiency and blend with the environment. The construction works of the project has been commenced in May 2009 and is expected for completion by September 2012.



Artist's impression of the overview of the new CAD HQ

## North Lantau Hospital Phase I

To meet with the rising calls of medical needs in the Lantau Island, we are assisting the Government in developing the first hospital in the region - the North Lantau Hospital. Located in Tung Chung Area 25, it occupies an area of approximately 1.9 hectares. It will provide acute care & extended care services with 160 in-patient beds and ambulatory care services to cope with the needs of the local community. This project, targeted to achieve platinum rating of BEAM, will integrate several key environmental features such as low energy absorbing building envelop with sun-shading device, green roof & terraces, extensive use of sensor water taps, PV panels and energy saving T5 fluorescent lamps with electronic ballasts. The construction works of Phase I has been commenced in January 2010 and is intended to be completed by the end of 2012.



North Lantau Hospital

## Velodrome at TKO

The project provides not only an indoor velodrome for cycling training and international competition but also a multi-purpose facility suitable for ball games, performing arts events, conferences, etc. to cope with the growing demand for leisure facilities in Tseung Kwan O. Apart from the velodrome-cum-sports centre building, the project also includes a town park with various leisure facilities such as a large lawn, an artificial lake, an amphitheatre, a skateboard park, a children's play area, a fitness corner for the elderly, etc. The project also incorporates sustainable building design and environmental features. With the adoption of Platinum rating for the green building standard, designs such as green roof, solar panel systems, solar water heating system and rainwater recycling system are included. The construction works has been commenced in March 2010 for completion in April 2013.



Velodrome at TKO

## Second Secondary School at Development near Choi Wan Road and Jordan Valley, Kwun Tong

To demonstrate the use of energy efficient features in school projects, we have launched a pilot energy efficient school project in Kwun Tong. This pilot project is aimed to demonstrate to the public the feasible adoption of energy efficient features and renewable energy technologies for projects of similar type. The construction of this project has been started in November 2009 and will be completed by August 2011.



View of the school premises from North-Eastern direction



View of the school premises from South-Western direction

## Departmental Business Plan

The devastating impacts posed by the financial tsunami have brought unprecedented strain to our operation. In response to the uncertain challenge, we have sought a pragmatic approach to strategic development and we are on the lookout for a better plan that can cater various scenarios in the future.

Having embraced a comprehensive analysis and a detailed review of our external and internal operating environment plus consultation with our fellow colleagues, we have re-affirmed our commitment to the core values. Our vision, mission and values as well as operating strategy have been revisited and re-defined in order to enhance the effectiveness and affordability of our sustainable development. Recognising that we have to focus on the long-term viability whilst fulfil the short-term needs, 5 major directions and targets have been set out in the 5-Year Departmental Business Plan (DBP) for strategic development. The 5 major objectives focus in services on government-wide total asset and facilities management, high value-added advisory services, best practices in construction, sustainable development and heritage conservation, stakeholder partnership and collaboration, and our service capability and organisational effectiveness. This DBP will lead us to overcome the difficulties and support us to become more confident in securing our long-term development. Details can be found in [Departmental Business Plan Section](#).

Looking forward, the DBP will pave the way to our operational restructuring and business direction, which will lead us to the sustainable development. This 5-Year DBP will be finalised and commenced in 2010. The detailed DBP will be covered in the next report.

## Data Summary

### Performance Data

#### Environmental Performance

##### ***Resources Usage - Energy***

	Units	2009	2008	2007	2006	2005
Electricity consumed (QGO and APB Centre) [1]	kWh/m <sup>2</sup>	238	244	245	265.2	277.5
CO <sub>2</sub> emission equivalent to electricity consumption (QGO and APB Centre) [2]	Tonnes CO <sub>2</sub> e	4,027	4,071	4,089	4,644	4,858
Building with OTTV less than 23W/m <sup>2</sup> [3]	% & no. of total no. of projects	100% & 16 of 16	100% & 24 of 24	100% & 15 of 15	100% & 7 of 7	100% & 11 of 11
Building with OTTV less than 18W/m <sup>2</sup> [3]	% & no. of total no. of projects	68.75% & 11 of 16	75% & 18 of 24	66.7% & 10 of 15	85.7% & 6 of 7	63.6% & 7 of 11
Energy saved due to energy efficient installations [4]	GWh	1.35	1.7	4.9	39	84
Equivalent monetary savings	HK\$ million	1.35	1.7	4.9	39	84
Avoided CO <sub>2</sub> emissions [5]	in ,000 Tonnes CO <sub>2</sub> e	0.95	1.19 [6]	3.43	27.3	58.8

[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 February 2010.

[3] The OTTV requirements apply to new buildings only. It is calculated based on the Code of Practice for Overall Thermal Transfer Value in Buildings issued by the Building Authority.

[4] The data refers to the completed projects in 2009. Energy efficient installations refer to LED Exit sign, occupancy sensor/ photo sensor, water-cooled chiller/ evaporative cooling tower etc.

[5] 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.

[6] 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	2009	2008	2007	2006	2005
Fuel consumption by ArchSD's pool cars	Litre	17,236.2	14,697.4	18,690	19,639	24,169
GHG emission equivalent to fuel consumption by ArchSD pool cars [7]	Tonnes CO <sub>2</sub> e	46.7	39.8	44.1	46.4	57.1

[7] 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 February 2010.

**Resource Usage - Office Materials**

	Units	2009	2008	2007	2006	2005
A4 paper consumption	Reams	20,536	19,653	20,263	21,765	21,182
A3 paper consumption	Reams	1,203	1,054	1,063	1,241	1,378
Envelop consumption	Number	56,538	59,478	55,323	70,812	77,119
A4/A3 paper with recycled content consumption	Reams / % of total paper purchased	22,715 / 99.02%	21,460 / 99.49%	18,515 / 91.8%	18,984 / 79.5%	12,622 / 64.2%
Types of eco-friendly office consumables	Types	13	13	13	13	13

**Resource Usage - Timber & Water Use**

	Units	2009	2008	2007	2006	2005
Timber saving	Volume of Timber Saved in m <sup>3</sup> (Ratio Normalised [8] by Contract Value)	2,344.53 (0.34)	367.05 (0.05)	1,424.29 (0.22)	284.69 (0.20)	1,382 (0.56)
Water saving	No. of Water-saving Sanitary Appliances (Ratio Normalised by Contract Value)	4,555 (0.52)	4,242 (0.56)	6,254 (0.94)	1,473 (1.00)	2,831 (1.15)
Flushing water use in APB Centre	Cubic Metre	28,461 [9]	33,789	N/A	N/A	N/A
Potable water use in APB Centre	Cubic Metre	4,331	N/A	N/A	N/A	N/A

[8] 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.

[9] Because the water check meter was out of order in July and August 2009, the data only represents the flushing water consumption in 10 months.

**Waste Management**

	Units	2009	2008	2007	2006	2005
<b>Construction &amp; demolition materials</b>						
C&D waste disposed of to landfills	Tonnes	56,529	26,833	24,952	46,858	76,536
C&D materials disposed of to public fill areas	Tonnes	930,831	839,097	564,284	206,209	585,447
<b>Recyclable waste collected at APB Centre</b>						
Waste paper	kg	18,164 [10]	2,331	2,286	2,475	4,570
Aluminium cans	No.	4,354 [10]	277	231	220	254
Plastic bottles	No.	1,467 [10]	286	250	265	424

[10] APB Centre joined the Source Separation Programme of Commercial and Industrial Waste in March 2009. The cleaners are requested to report the volume of the collected recycled items to our General Registry. The significant increase in the figure was that we enhanced our control to record the recycled items from monthly basis to a weekly basis and the figure would be reported to EPD.

**Environmental Convictions of Contractors**

	Units	2009	2008	2007	2006	2005
Convictions per 100,000 man-hours	ArchSD sites (HK sites)	0.138 (0.909)	0.501 (1.397)	0.424 (0.546)	0.140 (0.518)	0.231 (0.417)

**Environmental Expenditure**

	Units	2009	2008	2007	2006	2005
Resources devoted to environmental works	Value (\$ million)	864.7	789.3	639.7	639.45	664.1
Percentage of annual expenditure		10.0%	10.3%	8.0%	7.1%	6.0%

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	2009	2008	2007	2006	2005
Staff establishment (As at March 31 each year)	No.	1,781	1,766	1,766	1,813	1,887
<b>Training</b>						
No. of training courses (including internal and external seminars/ workshops/ training courses/ visits)	No.	148	152	207	324	180
Numbers of trainees	No.	4,460	3,492	2,597	2,548	1,255
<b>Injury</b>						
Staff injury cases [11]	No.	5	0	2	5	7
Staff sick leave granted for staff injury cases	Days	85	0	163	110	207.5

[11] The definition of staff injury cases is the reported cases of occupational injuries, under Employee's Compensation Ordinance, resulting in death or incapacity for work over 3 days.

**Staff Establishment Breakdown**

<b>By Post</b>		
Directorate	%	2
Professional	%	23
General Staff	%	22
Site Staff	%	31
Technical	%	22
<b>By Employment Type</b>		
Full-time	%	100
<b>By Age</b>		
Age under 30	%	2.8
Age 30-49	%	58.4
Age 50 or above	%	38.8
<b>By Ethnicity</b>		
Local	%	99.8
Non-local	%	0.2
<b>By Gender</b>		
Male	%	72
Female	%	28



**Staff Turnover**

	Male	Female
Age 30-50	1.5% (26)	0.2% (4)
Age 51-55	0.3% (5)	0.1% (2)
Age 56-60	1.4% (24)	0.2% (3)

**Contractor's Accident Rate**

	Units	2009	2008	2007	2006	2005
No. of fatalities	ArchSD	2[12]	1	0	2	3
Fatal accident rate per 100,000 man-hours	ArchSD (HK Construction Industry)	0.0072 (0.013)	0.0053 [13] (0.011)	0 (0.010)	0.0085 (0.008)	0.0099 (0.012)
No. of non-fatal accidents	ArchSD	99	91	93	126	185
Non-fatal accident rate per 100,000 man-hours	ArchSD (HK Construction Industry)	0.36 (1.93)	0.48 (1.71)	0.44 (1.69)	0.54 (1.79)	0.61 (1.67)

[12] One fatal construction site accident in Contract No. SS P317 that an electrician fell from a manual operated aerial platform at about 2.5m above ground. Another fatal accident happened in Contract No. SSR314 that a steel fixer was hit by a fallen reinforcement bar being lifted by tower crane. Independent site audit checks were immediately conducted on the spot to ensure the site's safety management system was in order.

[13] The fatal accident rate per 100,000 man-hours figure for 2008 have been restated from 0.001 as given in the previous Sustainability Report.

**Community Work**

	Units	2009	2008	2007	2006	2005
Total number of voluntary work hours carried out by our staff	Hours	2,065	2,129	2,526	2,005	1,194
Number of active Voluntary Service Team members [14]	No.	25 out of 1,781	26 out of 1,766	35 out of 1,766	35 out of 1,699	47 out of 1,813
Number of staff received commendation for voluntary service [15]	No.	21	13	20	12	14
Number of Volunteers	No.	71	48	45	44	42
Number of Voluntary Projects Completed	No.	44	53	50	49	37

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

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

**Economic Performance**

	Units	2009-2010	2008-2009	2007-2008	2006-2007	2005-2006
Personal salaries and allowances	HK\$ million	882.29	886.88	835.62	805.58	823.81
Personnel related expenses	HK\$ million	2.88	1.71	0.68	0.70	0.75
Departmental expenses	HK\$ million	125.31	100.79	94.01	65.15	66.69
Other charges	HK\$ million	505.24	480.76	469.02	474.28[16]	475.63

[16] The Other Charges figure for 2006/07 has been restated from 475.33 as given in the previous Sustainability Reports.

## Report Verification

### Scope and Objective

Hong Kong Quality Assurance Agency ("HKQAA") was commissioned by The Architectural Services Department ("ArchSD") to undertake an independent verification of the Sustainability Report 2010 ("the Report"). The Report stated the past performance of ArchSD on economic, social and environmental aspects for the period between 1st January 2009 and 31st December 2009. The purpose of the verification exercise was to independently review the materiality, completeness, accuracy, consistency and reliability of the information presented in the Report. The Report's coverage of indicators defined in the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines Version 3.0 (G3) was also assessed to confirm if Application Level A+ has been achieved.



### Methodology

The verification procedure included reviewing relevant documentation, interviewing responsible persons with accountability for preparing the Report and verifying selected sample of data and information consolidated in the Report. Accuracy of the sampled data and the underlying processes were tested through detailed examination of available evidence to support substantive comments and claims made in the Report. The data and information were carefully verified for accuracy and cross-checked with third party information when available.

### Conclusion

After a thorough and detailed examination of the Report, our assessment team concludes that the Report provides a structured, balanced, reliable, consistent and accurate presentation of the sustainability management performance of ArchSD in the context of economic, social and environmental aspects for the reporting period. It is the opinion of our assessment team that the Report demonstrates a fair and honest 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). All selected data examined during our verification were consistent with the supporting information reviewed.

In conclusion, 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 our assessment team.

A handwritten signature in black ink, appearing to read 'Winniss Kong'.

Winniss Kong  
Auditor, Strategic Business Branch  
November 2010











## 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	Text in Green	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 <a href="#">Message from the Director</a>		
1.2.	Description of key impacts, risks, and opportunities <a href="#">Strategy and Management</a>		
<b>2.</b>	<b>Profile</b>		
	<b>Organisational Profile</b>		
2.1.	Name of the organisation <a href="#">About Us</a>		
2.2.	Primary brands, products and services <a href="#">About Us</a>		
2.3.	Operational structure of the organisation <a href="#">About Us</a>		
2.4.	Location of organisation's Headquarters <a href="#">About Us</a>		
2.5.	Number of countries where the organisation operates <a href="#">Strategy and Management</a>		Hong Kong only.
2.6.	Nature of ownership and legal form <a href="#">Message from the Director</a>		Part of the Hong Kong SAR Government.
2.7.	Markets served <a href="#">Strategy and Management</a>		
2.8.	Scale of the reporting organisation <a href="#">Social Performance</a>		

2.9.	Significant changes during the reporting period regarding size, structure, or ownership Reporting Scope		
2.10.	Awards received in the reporting period Recognitions and Awards		
<b>3.</b>	<b>Reporting Parameters</b>		
	<b>Report Profile</b>		
3.1.	Reporting period Reporting Scope		
3.2.	Date of most recent previous report (if any) Reporting Scope		
3.3.	Reporting Cycle Reporting Objectives		
3.4.	Contact point for questions regarding the report or its contents Feedback		
	<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 Reporting Principles Main Focus Areas		
3.6.	Boundaries of the report Reporting Scope		
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 Reporting Scope Data Summary		
3.10.	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement Data Summary		










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 GRI Content Index		
<b>Assurance</b>			
3.13.	Policy and current practice with regard to seeking external assurance for the report Report Verification Reporting Principles		
<b>4. Governance Structure and Management Systems</b>			
<b>Governance</b>			
4.1.	Governance structure of the organisation Strategy and Management		
4.2.	Indicate whether the Chair of the highest governance body is also an executive officer Strategy and Management		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 Stakeholder Engagement Staff Engagement		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 organisation'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.
4.6.	Processes in place for the highest governance body to ensure conflicts of interest are avoided Strategy and Management		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 <i>Strategy and Management</i>		
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 standards, codes of conduct, and principles. <i>Strategy and Management</i>		
4.10.	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance <i>Strategy and Management</i> <i>Project Quality Management</i>		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 <i>Strategy and Management</i>		
4.12.	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses <i>Strategy and Management</i> <i>Community Services</i> <i>Reporting Principles</i>		









4.13.	Memberships in associations and/or national/international advocacy organisations Experience Sharing		
<b>Stakeholder Engagement</b>			
4.14.	List of stakeholder groups engaged by the organisation Stakeholder Engagement		
4.15.	Basis for identification and selection of stakeholders with whom to engage Stakeholder Engagement Project Quality Management		
4.16.	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group Stakeholder Engagement Project Quality Management Experience Sharing Staff Engagement Staff Development Community Support Local Community Engagement Departmental Business Plan		
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 Management		
<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 Strategy and Management		










PA3	Identify the aspects for which the organisation has established sustainable development policies Strategy and Management	■	
PA4	Identify the specific goals of the organisation for the each aspects listed in PA3 Strategy and Management	■	
PA5	Describe the process by which the aspects and goals in both PA3 and PA4 were set Strategy and Management	■	
PA6	Monitoring of each goal Strategy and Management	■	
PA7	Describe the role of and engagement with stakeholders with respect to the items disclosed in PA6 Stakeholder Engagement	■	
<b>ECONOMIC PERFORMANCE INDICATORS</b>			
	Disclosure on Management Approach (Economic) Funding and Support	■	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 Message From the Director Funding and Support Economic Performance	■	No direct economic value generated.
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change Environmental Performance	■	
EC3	Coverage of the organisation's defined benefit plan obligations Economic Performance	■	

















EC4	Significant financial assistance received from government Funding and Support Economic Performance		No subsidies, but direct public fund from government.
<b>II. Market Presence</b>			
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation Supply Chain Management		In 2009, all our purchases were from local suppliers (defined as companies registered in Hong Kong).
EC7	Procedure for local hiring, and proportion of senior management hired from the local community at locations of significant operation Social Performance		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. All our senior management are local staff.
<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 Funding and Support		
PA9	Gross expenditures broken down by financial classification Funding and Support		
PA10	Capital expenditures by financial classification Funding and Support		
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 Strategy and Management		

PA13	Describe linkages between the public agency's procurement practices and its public policy priorities Strategy and Management		
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 Environmental Performance		
<b>ENVIRONMENTAL PERFORMANCE INDICATORS</b>			
	Disclosure on Management Approach (Environment) Strategy and Management		
<b>I. Materials</b>			
EN1	Materials used by weight or volume Green Purchasing Environmental Performance		
EN2	Percentage of materials used that are recycled input materials Data Summary		
<b>II. Energy</b>			
EN3	Direct energy consumption by primary energy source Environmental Performance		
EN4	Indirect energy consumption by primary source Environmental Performance		
EN5	Energy saved due to conservation and efficiency improvements Environmental Performance		
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives Energy Saving Design		








III. Water			
EN8	Total water withdrawal by source Environmental Performance		All water consumed is coming from the public water works system. At present, only the data of flushing water and potable water used in APB Centre are available, but we will continue to enhance the data collection mechanism with different parties and will report total water consumption in mid-term.
IV. Biodiversity			
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		Projects in progress or commenced in 2009 were situated in developed areas and had no significant impact on the biodiversity.
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas		Projects in progress or commenced in 2009 were situated in developed areas and had no significant impact on the biodiversity.
V. Emissions, Effluents, and Waste			
EN16	Total direct and indirect greenhouse gas emissions by weight Environmental Performance		
EN17	Other relevant indirect greenhouse gas emissions by weight		We will report relevant information in future reports by short term.
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved Energy Consumption Environmental Performance		
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 <a href="#">Data Summary</a>		Under the HKSAR Law, all discharged water is collected by the public sewage system to treatment plants before discharging into the sea. The quality of the discharged water is monitored by other relevant Government Departments. The quantity of our water discharged in our office (no other water source discharges through our drains) is the sum of the potable water consumed and the flushing water consumed.
EN22	Total weight of waste by type and disposal method <a href="#">Reuse and Recycling</a> <a href="#">Environmental Performance</a>		
EN23	Total number and volume of significant spills		There have been no reported spills in 2009.
<b>VII. Products and Services</b>			
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation <a href="#">Strategy and Management</a> <a href="#">Environmental Design</a>		
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 <a href="#">Environmental Performance</a>		Environmental offences of contractors show the number of cases. The total monetary value involved is \$35,500.
<b>X. Overall</b>			
EN30	Total environmental protection expenditures and investments by type <a href="#">Environmental Performance</a>		
<b>SOCIAL PERFORMANCE INDICATORS</b>			
	Disclosure on Management Approach - Labour <a href="#">Strategy and Management</a> <a href="#">Staff Engagement</a>		
	Disclosure on Management Approach - Human Right <a href="#">Strategy and Management</a>		

	Disclosure on Management Approach - Society Strategy and Management		
	Disclosure on Management Approach - Product Responsibility Strategy and Management		
<b>SOCIAL PERFORMANCE INDICATORS: LABOUR PRACTICES AND DECENT WORK</b>			
<b>I. Employment</b>			
LA1	Total workforce by employment type, employment contract, and region Social Performance		All our establishment posts are filled by permanent staffs or probational staffs.
LA2	Total number and rate of employee turnover by age group, gender and region Social Performance		
<b>II. Labour/ Management relations</b>			
LA4	Percentage of employees covered by collective bargaining agreements Staff Engagement		
LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements Staff Engagement		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 launch of Business Plan, staff consultation was initiated 8 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 Social Performance		
LA8	Education, training, counselling, prevention and risk-control programmers in place to assist workforce members, their families or community members regarding serious diseases Health and Safety		

IV. Training and Education			
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 Staff Development		
LA12	Percentage of employees receiving regular performance and career development reviews		The performances of all our employees are reviewed at least annually.
V. Diversity and Equal Opportunity			
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity Social Performance		
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.
SOCIAL PERFORMANCE INDICATORS: HUMAN RIGHTS			
I. Investment and Procurement Practices			
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 comply with labour regulations and 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	☐	No 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 Strategy and Management Staff Engagement	☐	No operations have been identified in which the right to exercise freedom of association and collective bargaining may be at risk.
<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 Strategy and Management	☐	
<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 Strategy and Management	☐	

<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 and Safety Project Environmental Assessment		
<b>II. Corruption</b>			
SO2	Percentage and total number of business units analyzed for risks related to corruption Strategy and Management		
SO3	Percentage of employees trained in organisation's anti-corruption policies and procedures Strategy and Management		The percentage of our staff whom attended anti-corruption/integrity management trainings in 2009 is 4.27%.
SO4	Actions taken in response to incidents of corruption Strategy and Management		In 2009, 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 Energy Saving Design		
<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 Health and Safety Project Quality Management		



<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 <i>Energy Saving Design</i>	☐	
<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>			
PA15	Results of assessments of the efficiency and effectiveness of services provided by the public agency, including the actions taken to achieve improvements in service delivery <i>Strategy and Management</i>	☐	

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

## Glossary

<b>Building Energy Codes (BEC)</b>	Building Energy Codes is a suite of guidance covers 5 aspects of installation practices, includes lighting, air conditioning, electrical and lift & escalator installations. It stipulates the minimum energy performance standards (MEPS) of these installations.
<b>Building Environmental Assessment Method (BEAM)</b>	Quote from BEAM Society, <i>"A means by which to benchmark and improve performance in the planning, design, construction, commissioning, operation and management of buildings."</i>
<b>Carbon Audit</b>	A systematic and scientific approach to account for the greenhouse gas emissions arising from the operations of the buildings.
<b>Carbon Footprint</b>	The carbon footprint is the measurement of all greenhouse gases an individual produces in daily lives through burning fossil fuels for electricity, heating, transportation, etc, usually in the unit of tonnes (or kg) of carbon dioxide equivalent.
<b>Designated Projects</b>	Designated projects are projects or proposals that may have an adverse impact on the environment. They are covered by the Environmental Impact Assessment Ordinance in which they are categorised into two schedules: Schedule 2 and 3. (Details please refer to "A Guide to the Environmental Impact Assessment Ordinance".)
<b>Environmental Impact Assessment (EIA)</b>	A process to assess the potential environmental impacts and environmental benefits (in quantitative and qualitative terms) of a project in the early planning stages as well as identify any alternatives or mitigation measures.
<b>Environmental Impact Assessment Ordinance (EIAO)</b>	An Ordinance to assess the impact on the environment of certain projects and proposals, for protecting the environment and for incidental matters through the application of the EIA process and the environmental permit system.
<b>Global Reporting Initiative (GRI)</b>	A multi-stakeholder-governed institution which provides a framework for sustainability reporting, which is commonly used all over the world. 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.
<b>Greenhouse Gases</b>	Greenhouse gases refer to those which are able to absorb and hold heat in the atmosphere, either occurring naturally (e.g. carbon dioxide, methane, ozone and water vapour) or exclusively resulting from human activities (e.g. hydrofluorocarbons).
<b>Grey Water</b>	Grey water is the wastewater generated from domestic activities such as hand washing and cloth laundering. It is suitable for reuse as landscape irrigation or even toilet flushing.
<b>Hong Kong Energy Efficiency Registration Scheme for Buildings</b>	This scheme launched by the Electrical & Mechanical Services Department for promoting the application of Building Energy Codes since October 1998. It provides an official platform for interested parties to register their buildings which comply with BECs.
<b>Important Tree</b>	Trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria: <ul style="list-style-type: none"> <li>■ trees of 100 years old or above;</li> <li>■ trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;</li> <li>■ trees of precious or rare species;</li> <li>■ trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or</li> <li>■ trees with trunk diameter equal or exceeding 1.0 metre (measured at 1.3 metre above ground level), or with height / canopy spread equal or exceeding 25 m.</li> </ul>
<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>Microclimate Study</b>	Microclimate study acts as an environmental performance factor of the site providing environmental characteristic of the site for the purpose of creating a sustainable environment which provides the greater comfort for the development.
<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>Post Occupancy Evaluation (POE)</b>	Post Occupancy Evaluation is a management tool tailor-made to evaluate the performance, assess the effectiveness of sophisticated building services systems after client occupancy, and to address clients' concerns on the functional requirements and energy consumption of their recently completed building projects.
<b>Stakeholder</b>	It refers to individuals, groups or organisations which experience directly or indirectly the actions and policies implemented by an organisation.
<b>Sustainable Development</b>	Sustainable development is the development approach which meets the desires of the present and preserves the environment and natural resource for the future generations.
<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 our community regardless of diversity, age and ability.
<b>U-value</b>	The rate of heat flow through a material. It is measured as the amount of heat flow through 1m <sup>2</sup> of the material for every degree difference in temperature each second.
<b>Valuable Tree</b>	Refers to the "valuable trees" in the Register of Old and Valuable Trees which are distinguished in the following categories: <ul style="list-style-type: none"> <li>■ Trees of large size</li> <li>■ Trees of precious or rare species</li> <li>■ Trees of particularly old age (e.g. aged 100 or above)</li> <li>■ Trees of cultural, historical or memorable significance; and</li> <li>■ Trees of outstanding form.</li> </ul>
<b>Vertical Greening</b>	Vertical greening is the application of a vegetative cover to a wall / vertical structure. It serves as the thermal insulation to building to moderate temperature and relative humidity to the site. It also helps in filtrating dust pollution, reducing noise pollution and enhancing the biological diversity of the building and its surroundings.

## Feedback

# Sustainability Report 2010

Thank you for reading our report. Your comments and suggestions for our continuous improvement are invaluable. Please take a few minutes to complete this 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. How would you rate the overall report?

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

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

5. Other comments:

## Architectural Services Department - Sustainability Report 2010 - Feedback

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:

Your Organisation:

Your Telephone:

Your Email address:

Thank you and we appreciate your feedback.

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

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