

Buildings Department Sustainability Report 2017



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DIRECTOR'S MESSAGE

Welcome to the Sustainability Report 2017 of the Buildings Department (BD)! In this annual publication, we share with stakeholders our latest progress in promoting building safety and quality, in an aim to uphold the Government's long-term commitment to developing a safe, liveable, and sustainable city environment for Hong Kong people.

The city is renowned world-wide for its beautiful skyscraper landscape consists of modern buildings and large-scale facilities; on the other hand, almost half of the buildings in the city are expected to be over 50 years old by 2046. In order to safeguard people in and

around these new and existing buildings, we continue to place priority on reinforcing building quality standards and cultivating building caring culture in collaboration with professionals and the public. During the year, BD brought building integrity under spotlight once again by releasing the investigation reports of two recent cases. In light of the investigation findings, we identified a potential area to enhance industry practices, thus responded by issuing a circular letter to remind the building industry of the technical issues associated in designing and installing roof greening in existing buildings and introduced a new guide on greening in buildings.



Environmental considerations have significant impact to building quality and user comfortability, therefore we have been collaborating with other departments to encourage developers to integrate green features in new buildings, promote building environmental assessment, and reduce construction and demolition wastes. For instance, we issued a new practice guide in 2017 on Modular Integrated Construction to encourage innovative construction methods of manufacturing volumetric modules off-site and then assembling on site, thus reducing construction waste and nuisance to neighbourhood while increasing work efficiency and quality and improving site safety.

Buildings Department

To help disseminate building safety messages to building professionals and the public, BD continued to hold the signature event of Building Safety Week in March to offer a dynamic platform for professionals and the public to exchange knowledge and experience over a series of activities. We are also developing a new online learning portal "E-Learning Centre" to offer modular courses on building safety for building owners. Building owners will be able to obtain a recognition certificate and register for future online seminars after completing each of the six training modules.

The youth are our future, and their awareness in building safety will create a prolonged positive impact to our communities. In July, we launched the 2017-18 Building Safety Pioneer Programme targeting secondary school students, through which young participants were provided with various learning opportunities, including creating own promotional video, to increase their understanding on the importance of building safety,

responsibilities of building owners, as well as duties of BD and building professionals. Meanwhile, the "Home Safe Home • Home Sweet Home" Comic Drawing Competition was successfully completed later in the year, attracting nearly 1 350 entries from 157 schools in total.

We would like to take the opportunity to thank our staff and external stakeholders for their contribution during the year, and hope this report will serve as a useful platform to share BD's sustainability commitment as well as to foster our collaboration with different stakeholders for a safer and healthier built environment in Hong Kong.

Dr CHEUNG Tin-cheung, JP

Director of Buildings

ABOUT THIS REPORT

This is Buildings Department's (BD) 2nd annual sustainability report (the Report). It details our operations, sustainability performance and key impacts on the economy, environment and society whilst aligning with international reporting requirements. BD places the same emphasis on increasing our organisational transparency and the quality of information for our stakeholders, enabling greater accountability.

Scope

This Report focuses on our sustainability initiatives and achievements of all BD's activities and operations, unless otherwise stated, for the calendar year from 1 January 2017 to 31 December 2017. Financial data presented are for the financial year ended on 31 March 2018 with all monetary values presented in Hong Kong Dollars.

Principles

This Report is prepared in accordance with the Core option of the internationally recognised Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) (see more at: https://www.globalreporting.org/ information/sustainability-reporting/Pages/gri-standards.aspx). A GRI Content Index is provided in the Report for easy reference.

Assurance

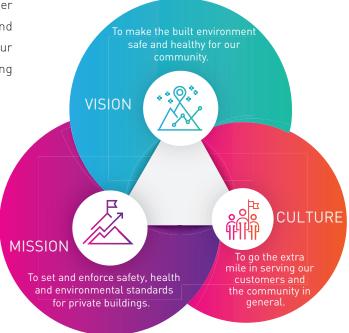
To enhance due reliability and credibility of the Report, BD engaged an independent third party to provide report assurance for the information contained in this Report. The Independent Assurance Statement issued for this Report is presented at the end of this Report.



SUSTAINABLE ORGANISATION

BD was established in 1993 with the aim to promote building safety; set and enforce safety, health and environmental standards for private buildings; as well as improving the quality of our built environment, under the remit of Buildings Ordinance (BO) (Cap. 123) and its subsidiary legislations. Apart from focusing on our core responsibilities, we pay high regard to becoming

a sustainable organisation and supporting related initiatives and policies promulgated by the Government.



Services and Organisation

Regarding owners and occupants in existing and new private buildings, we offer a range of services through

enforcing the BO. Some core services are summarised below:

Processing applications for and monitoring the construction of new buildings, and alteration and addition works

Taking enforcement action against dangerous and newly erected unauthorised building works (UBWs), dangerous buildings and slopes, defective drains and signboards

Promoting timely maintenance of buildings through the implementation of Mandatory Building Inspection Scheme (MBIS) and Mandatory Window Inspection Scheme (MWIS)

Processing minor works submissions under the simplified requirements of the Minor Works Control System (MWCS)

Improving the fire safety provisions of existing buildings

Maintaining a 24-hour emergency services to deal with emergencies affecting the safety of private buildings

Advising licensing authorities from building safety point of view on the licence applications

Carrying regular reviews of our regulations and standards to keep the building control system commensurate with the advancement in technology and the needs of the society

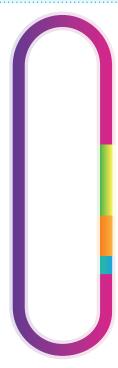
BD's Organisation Chart Director of Buildings **Deputy Director Administration Section** Corporate Services Mandatory Building Inspection Division Internal Audit Unit Existing Buildings Divisions 1 & 2 **Supplies Section** New Buildings Divisions 1 & 2 Information Unit Departmental Accounts &





- 1. Dr. CHEUNG Tin-cheung, JP (Director of Buildings)
- 2. Mr. YU Tak-cheung, JP (Deputy Director of Buildings)
- 3. Mr. HO Chun-hung (Assistant Director, Existing Buildings 2)
- 4. Mr. NG Kin-shing, Ken (Assistant Director, Mandatory Building Inspection)
- 5. Ms. CHAN Chui-mei, Grace (Senior Treasury Accountant)
- 6. Ms. YU Po-mei, Clarice (Assistant Director, Corporate Services)
- 7. Mr. HO Hon-kit, Humphrey (Assistant Director, New Buildings 2)
- 8. Dr. HUI Ming-fong (Assistant Director, Existing Buildings 1)
- 9. Mr. YEUNG Kar-kui (Assistant Director, New Buildings 1)
- 10. Mr. WU Tin-hung, Patrick (Departmental Secretary)

Breakdown of BD's Actual Expenditure in 2017-18*



75.7%

1,055.4 HK\$M

Personal Emoluments
Include salaries, allowances and other job-related allowance

16.6%

231.0 HK\$M

Departmental Expenses

Include hire of services and professional fees, contract maintenance and other general departmental expenses

5.5%

76.1 HK\$M

Personnel Related Expenses

Include Mandatory Provident Fund and Civil Service Provident Fund contribution

2.2%

31.6 HK\$M

Other

Include payment for Land Registry/Companies Registry Trading Fund services

*Note: Actual expenditure accounts for the financial period from 1 April 2017 to 31 March 2018

Charters and Memberships

To further excel in our service provision, we actively engage with professional bodies and community to facilitate information exchange and to provide technical advice on building safety and standards. Our involvements in external associations and committees are summarised in the following table.

| Involvement in External Associations and Committees | Classes of Membership |
|---|---|
| World Organisation of Building Officials | Founding member |
| Hong Kong Green Building Council (HKGBC) | Associate member |
| | Advisor, Green Labelling Committee and Policy and Research Committee |
| University-Government-Industry Consortium for Sustainable Urban Development | Founding member |
| Hong Kong Zero Carbon Partnership | Corporate member |
| Construction Industry Council (CIC) | Member |
| | Chairman of Committee on Environment |
| | Member of Executive Committee |
| | Member of Construction Innovation and Techonolgy Application Centre |
| Hong Kong Housing Society Supervisory Board | Ex-officio member |
| Board of Urban Renewal Authority | Non-executive director |
| Hong Kong/Guangdong Joint Liaison Group on Combating Climate Change | Committee member |

We also signed up environmental charters and stewardships to support industry best practices and

promote sustainable development.

| | Name of Charter or Stewardship | Year of Joining |
|--------------|---|-----------------|
| ************ | Clean Air Charter | 2006 |
| | Greening Partner Charter which is organised by the Greening, Landscape and Tree Management Section of Development Bureau | 2013 |

Management Mechanism

BD continues to pursue excellence in sustainable development which has been well acknowledged and ingrained in our operations and culture. We have a robust sustainability management mechanism in place to ensure cross-level interaction and participation within and beyond the organisation. Existing policies and environmental performance are under regular review to identify potential impacts and rooms for improvement. Ultimately, we strive for continual improvement that support the Government's sustainability agenda.

Collaboration and Harmonisation



Stakeholder Engagement

Maintaining an ongoing dialogue with stakeholders is vital for us to evaluate our sustainability performance and ensure that our works are well aligned with the needs of the community. With respect to this, we engage with key internal and external stakeholders

that are of relevance to BD's daily operations and implementation of sustainable strategies. Different types of communication channels are designed in specific to different groups of stakeholders to ensure that they are properly engaged.

| | Staff/Management meetings/Grade consultative groups | |
|--|---|--|
| Staff Members | Training | |
| Staff Members | Intranet | |
| | Annual performance appraisals | |
| Government Departments or Agencies | Cross-departmental meetings | |
| Government Departments of Agencies | Charters and schemes | |
| Legislative Council (LegCo) and District Council | LegCo Development Panel Meetings | |
| (DC) Members | DC Meetings | |
| | Advisory and Statutory Bodies/Committees | |
| Industry Associations | Sustainability report | |
| | Stakeholder engagement exercises | |
| | Briefings/Seminars | |
| | Advisory and Statutory Bodies/Committees | |
| Building Professionals | Stakeholder consultation | |
| | Sustainability report | |
| | Briefings/Seminars | |
| NGO Non-governmental Organisations | Stakeholder engagement exercises | |
| | Sustainability report | |
| Media | Press releases | |
| | Social media | |
| | Press releases | |
| | Social media | |
| General Public | Customer satisfaction surveys | |
| | Building Safety Week/ Building Safety Symposiums/Public talks/Seminars | |

Material Topics

To ensure credibility, we design and conduct the stakeholder engagement programme through an independent consultant, the Hong Kong Productivity Council (the Consultant) during the preparation of this Report. In this reporting year, three stakeholders groups were invited to participate in the programme, where a staff focus group and six face-to-face interviews with academics and non-governmental organisations were undertaken between October to November 2018 to collect opinions on issues and impacts relating to BD's environmental and other sustainable development.

From this exercise, the Consultant has analysed and assessed the feedback to continuously strengthen our sustainability management mechanism and inform our sustainability strategies. This following table presented a list of material topics that were selected with special attention to the stakeholders' concerns. The corresponding boundaries, i.e. where the impacts occur and BD's involvement for each of these material topics which include BD's offices and facilities, and the operations of our major consultants and contractors that we have engaged were also assessed.

| м | Material Aspects | |
|--|--|--|
| Operation Performance | Indirect Economic Impacts | |
| Environmental Performance | Materials | |
| | Energy | |
| | Supplier Environmental Assessment | |
| Staff Welfare and Development | Occupational Health and Safety | |
| | Training and Education | |
| | Labour Practices Grievance Mechanisms | |
| Social Responsibility and Human Rights | Anti-Corruption | |
| | Freedom of Association and Collective Bargaining | |
| | Compliance with Social Regulations | |

| Key areas raised | Stakeholders' remark and comments |
|---------------------------|---|
| Workplace Practice | Stakeholders suggested the allocation of more human resources towards publicity of BD services and initiatives to better extend its reach to the wider community |
| | Stakeholders suggested more orientation training for new employees to further enhance service quality and build a supportive network |
| Local Communities | BD volunteers' effort in actively organising and participating various community services such as elderly home visits and mental health awareness programme that span across Hong Kong, Mainland China and Macau. It was suggested that BD staff could also leverage their professional skills to support building inspections and minor works for lower income families. |
| | Stakeholders also suggested that BD can organise talks, sharing or mobile exhibition for different districts on topics including building safety, repairs, minor works and inspection, for target groups including property owners, elderly and social workers. |
| Environmental Performance | Stakeholders appreciated the effort of BD in transforming into paperless operation. It is suggested that more environmental measures can be adopted and green facilities such as recycling bins can be installed in BD offices to enhance environmental awareness. |
| Communications | Stakeholders commended BD for the increase in public education events. Some stakeholders also expressed that Building Safety Week was professional and well organised. |

SUSTAINABLE BUILT ENVIRONMENT

BD plays a significant role in ensuring both new and existing private buildings are safe, liveable and sustainable for our community, whilst fostering the conservation of heritage buildings and engaging the community to drive a caring built environment across Hong Kong.

Safe and Sustainable New Buildings

BD remains at the forefront of building standards by safeguarding building safety, fostering environmental performance of new buildings and promoting efficient construction methods through the delivery of our services.

Strengthening Building Standards

BD continuously reviews the BO and its subsidiary regulations to enhance sustainable development of new buildings from construction, sanitary fitments, energy efficiency to seismic-resistant building designs.

Construction and Planning

Responding to the feedback of our stakeholders, we have set out a plan to propose amendments to the Building (Construction) Regulations to the LegCo in 2019/2020. A consultancy study has been commissioned to review the Building (Planning) Regulations to boost and encourage the adoption of modern and innovative building designs by establishing performance-based standards.

Sanitary Fitments, Plumbing and Drainage

Over the past years, BD has made revisions to the prescriptive requirements in the current plumbing and drainage standards for private buildings. By taking stakeholders' views into consideration, BD has revamped the Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations in two phases: Phase I to amend the standards of provisions for female sanitary fitments (implemented in December 2015); and Phase II to promote the application of performance-based regulatory system (at law drafting stage).

Energy Efficiency of Buildings

In line with the Energy Saving Plan for Hong Kong's Built Environment 2015~2025+ promulgated by the Environment Bureau, the Technical Committee on Design and Construction Requirements for Energy Efficiency of Buildings (TC on EE) has completed a review on the prevailing Overall Thermal Transfer Value (OTTV) under the Code of Practice for Overall Thermal Transfer Value (OTTV Code) and the Building (Energy Efficiency) Regulations in 2017. Based on the recommendations by the TC on EE, we have planned to tighten the current OTTV standards and to commission a comprehensive review/update of the current OTTV Code in the coming year.

Seismic-resistant Building Design

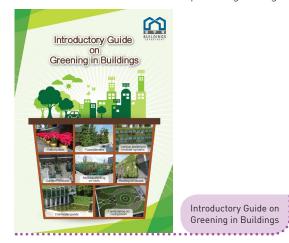
In order to ensure local regulation to be on par with international standards, BD has commissioned a consultancy study on seismic-resistant design standards to avoid cost of building damage and fatalities in the event of an earthquake. The formulation of a Code of Practice on Seismic-resistant Design Standards for Buildings in Hong Kong is in progress, which will serve as a technical guideline for determining seismic actions on buildings and the pertinent design and construction of seismic-resistant buildings in Hong Kong. A Steering Committee has been established to oversee the consultancy study and the development of the Code, comprising representatives coming from multiple sectors including government departments, industry experts, academics and local practitioners. The extant BO and its subsidiary regulations would be reviewed and relevant legislative amendments would be proposed if deemed necessary to introduce the new design standards.

Promulgating Environmentally Sound Building Developments

Together with the Planning Department and the Lands Department, we have been offering incentives for developers since 2001 to promote the implementation of green features in new building developments, an approach to stimulate the environmental performance enhancement of buildings and quality living space.

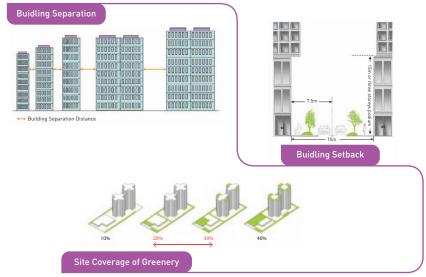
Promoting Sustainable Building Designs

We constantly conduct review of the Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) which promulgate guidelines on building designs among professionals and stakeholders to enhance quality and sustainability of local building development. In June 2017, we issued PNAP ADV-35 and a pamphlet to set out the areas of considerations in planning, designing



and installing greening in buildings.

The gross floor area (GFA) concessions policy and the Sustainable Building Design Guidelines (SBD Guidelines) have been introduced under PNAP APP-151 and APP-152 to enhance the quality and sustainability of the built environment in Hong Kong. The SBD Guidelines establish three key building design elements to enhance the environmental sustainability of our living space with the aim to enhance air ventilation, increase greenery and mitigate heat island effect of the built



Three Key Building Elements of SBD Guidelines

environment.

Building projects must comply with the SBD Guidelines as a prerequisite in exempting or disregarding green/amenity features, as well as non-mandatory/ non-essential plant rooms and services from GFA



Encouraging Provision of Greenery in Common Areas

calculations in building projects. The maximum concession is set at 10% of the total GFA of the development. Various briefing seminars and experience sharing sessions with stakeholders and building professionals on the application of the SBD Guidelines



approved proposals granted with GFA concessions

proposals in compliance with the SBD Guidelines



approved proposals did not apply for GFA concessions

proposals to which SBD Guidelines were not applicable

were held in 2017.

Participating in Building Environmental Assessment

BD welcomes the adoption of Building Environmental Assessment Method (BEAM) Plus, a building sustainability rating system, to recognise the achievements of particular green standards. The public may visit our website for the ratings of all completed buildings. A consultancy study has been commissioned to review the current arrangement under which a development project is only required to register for BEAM Plus assessment as one of the prerequisites for granting GFA concessions, with a view to further promoting green buildings.



building proposals were registered for BEAM Plus assessment, amount to

of the approved proposals.

Reducing Construction and Demolition (C&D) Wastes

We contribute to the reduction of C&D waste by collaborating with our stakeholders in reviewing and promoting the use of environmentally friendly construction methods. We have continued to improve current building design and construction practices by encouraging more extensive application of precast concrete construction in the industry. To further minimise unnecessary removal and wastes, different validation schemes such as those for unauthorised household minor works and signboards are also established.



Facilitating Modular Integrated Construction

Modular Integrated Construction (MiC) method employs the technique of having free-standing volumetric modules complete with finishes, fixtures and fittings manufactured off-site and then transported to site for assembly. It has proven benefits of improved site safety, more efficient and better quality control, less construction waste, faster construction, and less disturbance and nuisance to the neighbourhood, ultimately helping to contribute the quality and sustainable built-environment. In December 2017, we issued the PNAP ADV-36 for MiC to encourage wider use of MiC and to announce the streamlined measures and



guidelines that would facilitate the industry in meeting the relevant standards and requirements under the BO, including a pre-acceptance arrangement for granting in-principle acceptance to individual MiC systems/components on specific performance to facilitate developers in selecting MiC system.

Upkeeping the Wellbeing of Existing Buildings

Our services pertaining to existing buildings include promoting the importance of environmental hygiene, fire safety, proper maintenance of old buildings, drainage and slopes, reducing risks and nuisances caused by UBWs, subdivided flats and advertisement signboards as well as processing submissions under the various validation schemes.

Improving Environmental Hygiene

BD has taken steps to tackle and acknowledge the public concerns on negative impact of building neglect and the perpetual environmental hygiene problems by joining forces with other government departments to ameliorate environmental conditions of some identified black spots through large-scale operations (LSOs). In 2017, we continued to work with the Home Affairs Department and other relevant government departments to implement the Hygiene Blackspots Clearance programme (Phase IV) under the Team Clean Operation.

Rectifying Water Seepage Problems

BD has been collaborating with the Food and Environmental Hygiene Department (FEHD) in addressing water seepage problems and a consultancy study has been commissioned to investigate the feasibility of the latest technologies to resolve the problem of water seepage.

Promoting Building Maintenance and Repairs

BD endeavours to foster a building care culture and a sustainable living environment in the community by promoting latest guidelines, establishing different inspection and validation schemes and providing financial and technical assistance for carrying out building repair and maintenance works. We have put in place a holistic strategy to manage the problems associated with the long-standing building neglect and dilapidation.

Promulgating Guidelines to Facilitate Operation and Maintenance

We remind practitioners through PNAPs and circular letters to make provisions in building design to facilitate future repairs and maintenance, and to take steps to enhance environmental hygiene.

In May 2017, two circular letters were issued to remind practitioners to take proactive anti-mosquito measures in construction sites and adopt preventive measures to avoid any adverse drainage impact on the public drainage systems.





Tackling UBWs and Rectifying Building Dilapidations

To curb UBWs and rectify building dilapidations including drainage defects, ongoing large-scale operations against target buildings for clearance of UBWs and building repairs have been carried out. We also took enforcement actions against unauthorised large signboards and unauthorised signboards at selected target streets in 2017.





1 339
abandoned/

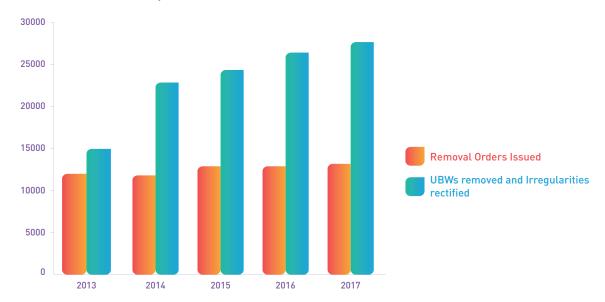
abandoned/ dangerous signboards removed/ repaired



27 683

UBWs removed and irregularities rectified

UBWs Clearance Operations from 2013-2017





Buildings before (left) and after (right) UBWs Clearance Operation

Clearance Operation on Unauthorised Roof Structures Ensemble

As part of our continued efforts to eliminate safety hazard and environmental nuisance, BD has set targets of clearing UBWs on rooftops, flat roofs, yards and lanes in target buildings like domestic, composite and industrial buildings.



removal orders issued

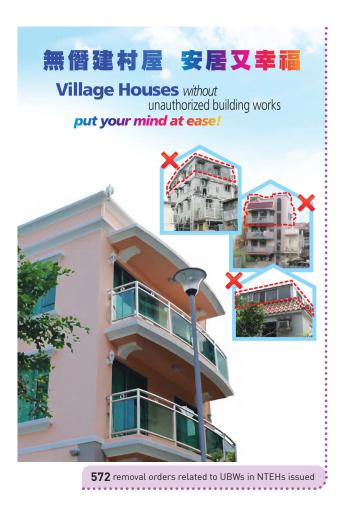


repair/investigation orders issued

orders complied

Tackling UBWs in New Territories Exempted Houses (NTEHs)

BD's enhanced enforcement strategy to combat UBWs in NTEHs has been commenced since 1 April 2012. Enforcement actions have been taken where there are UBWs posing obvious hazards or imminent danger, under construction or newly completed, as well as not posing imminent risk but constituting serious contravention of the law and imposing higher potential risks. A Reporting Scheme was also launched to curb the emergence of new UBWs and to safeguard the structural safety of buildings. In addition, BD provided clear guidelines on specified green and amenity facilities in NTEHs to encourage the use of green facilities, including small scale solar energy installation, rooftop gardening trellis etc. Green and amenity facilities satisfying the specified requirements are allowed to stay or be installed in the future.



Large-scale Operation on Inspection of Subdivided Flats (SDFs)

Another core responsibility of BD is the enforcement action against irregularities of building works associated with SDFs. Apart from responding to reports, BD also conducts LSOs. The LSOs in 2017 involved domestic, composite and industrial buildings. An assistance programme funded by the Community Care Fund has been established to provide relocation allowance to residents who are required to move out from the illegal domestic premises in industrial buildings due to enforcement action by BD.





100 target buildings in 2017



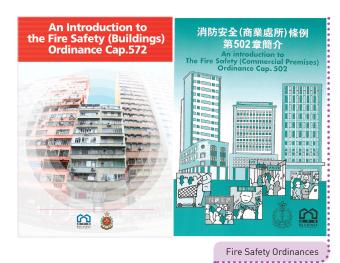
2 230
SDFs inspected in total in response to reports and through LSOs



253
SDF irregularities rectified

Focusing on Fire Safety

BD strives to improve the existing fire safety measures in prescribed commercial premises including banks, off-course betting centres, jewellery shops, supermarkets and shopping arcades, as well as pre-1987 commercial buildings and composite buildings. In 2017, these premises and buildings were inspected for enforcement action under the Fire Safety (Commercial Premises) Ordinance (Cap. 502) and the Fire Safety (Buildings) Ordinance (Cap. 572).





50 prescribed commercial premises,



20 specified commercial buildings and



416 composite buildings were inspected



3 664 fire safety directions were issued to require improvement of the fire safety construction

Mandatory Building and Window Inspection Schemes

Pursuant to the established MBIS and MWIS, owners of buildings aged 30 or above (except domestic buildings not exceeding 3 storeys) are obliged to conduct MBIS and owners of buildings aged 10 or above (except domestic buildings not exceeding three storeys) are obliged to conduct MWIS. BD continued to offer support to owners and stakeholders as well as enhancing the

execution of the MBIS and the MWIS by leveraging experience gained from different promotional activities and feedback from stakeholders and the community. In 2017, 436 buildings were selected for implementation of MBIS and MWIS concurrently and 28 buildings were selected for implementation of MWIS only.

Public Communications and Tools



24 district briefing sessions were held to explain the details of the MBIS and MWIS and the assistance packages available to eligible building owners.

15 briefing sessions and seminars were conducted for building owners, owners' corporations and the industry upon invitation.



A search function for the issuance/compliance status of MBIS/MWIS notices was made available in 2017 on BD's website.



A Layman's Guide on MWIS was issued in March 2017 to illustrate the major steps for compliance, the essential inspection components and conditions requiring repair.



BD updated the Code of Practice for the MBIS and MWIS 2012 in March 2017 to clarify the inspection, supervision and repair requirements having regard to the feedback received from the practitioners and the stakeholders.

Operation Building Bright (OBB) Programme

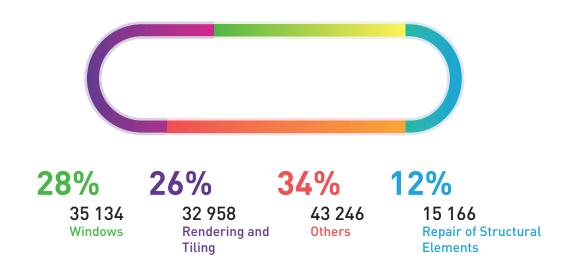
To create more job opportunities for construction sector as well as promote building safety and improve the cityscape and living environment, we have almost completed the OBB programme which was first launched in 2009 in collaboration with the Hong Kong Housing Society (HKHS) and the Urban Renewal Authority (URA). The OBB programme provides financial and technical assistance to eligible owners of old and dilapidated buildings with difficulties in coordinating repair and maintenance works. We have been engaging consultants and contractors to carry out repair works in default of the owners and a total of 1 273 buildings have benefited from the OBB programme up to end of 2017.



In October 2017, the Chief Executive announced in her Policy Address the Government's plan to launch Operation Building Bright 2.0 at a cost of \$3 billion to enhance the provision of direct technical and financial assistance to needy owners in helping them comply with MBIS requirements.

MWCS

In order to provide a lawful, simple, safe and convenient means for building owners to carry out small-scale building works, BD has introduced the MWCS since 31 December 2010.



We have established the Household Minor Works Validation Scheme under the MWCS, to facilitate building owners in retaining, after validation, minor household installations constructed without having obtained the prior approval and consent of plans under the BO before the date of commencement of operation of the scheme. This can avoid unnecessary removal of and wastage from such structures.

> Validation of 394 minor household installations and 9 signboards (overall figures as at 31 December 2017)



BD continued to implement the Signboard Validation Scheme (SVS) which was launched on 2 September 2013. The objective of the scheme is to enhance and acknowledge the safety of the existing signboards.

Round-the-clock Emergency Services

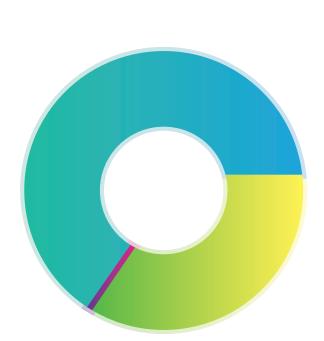
We maintain a 24-hour emergency service to deal with emergencies affecting the safety of private buildings. Our Emergency Control Centre (ECC) is activated upon hoisting of Tropical Cyclone Warning Signal No. 8, in times of severe and prolonged rainfall or other natural disasters. ECC coordinates expeditious professional services on dangerous buildings, signboards, hillsides and scaffolding. There were around 958 emergency cases undertaken by BD and 133 cases involved our contractor's actions in 2017.



Officers on duty at the ECC



Emergency action involving a dangerous signboard





958

Emergency cases undertaken by BD (including cases handled by ECC)



133

Cases involved contractor's actions

62%During office hours

35% Outside office hours

3% Emergency shift under ECC

Providing Financial Assistance to Building Owners

Our Building Safety Loan Scheme (BSLS) is one of the schemes under the Integrated Building Maintenance Assistance Scheme. It provides loans to private building

578
BSLS applications were approved



owners for the implementation of repair works or removal of UBWs.



Conservation of Heritage Buildings

Heritage buildings are old buildings, but their historic and aesthetic values are worth preserving to enrich our culture and cityscape.

In line with Government's Initiatives

We take a holistic approach to support the Government's initiative to revitalise public historic buildings through a partnership scheme and facilitate the adaptive reuse of private historic buildings without compromising building safety and health requirements under the BO. Our Heritage Units (HU) were formed to dedicate our effort in different heritage building projects. They offer technical advice and pre-submission enquiry service to facilitate approval of building plan submissions involving adaptive re-use of and alteration and addition works to historic buildings.

Setting Guidelines for Heritage Conservation **Projects**

In consultation with the Antiquities and Monuments Office of the Commissioner of Heritage's Office, the Fire Services Department and the Architectural Services Department, BD has issued the "Practice Guidebook for Adaptive Re-use of and Alteration and Addition Works to Heritage Buildings 2012" (the Practice Guidebook) with an aim to provide more guidelines on design flexibility and examples of successful cases to encourage and facilitate building practitioners and private owners to adaptively re-use historic buildings. Following the promulgation of the Practice Guidebook, BD has set up the Technical Committee on Building Safety and Health Requirements for Historical Buildings under the BO (the Technical Commitee) which holds regular meetings to collect users' feedback on the Practice Guidebook for future refinement and to share experience on successful revitalisation projects.

Pursuant to the Antiquities Advisory Board's policy review on the conservation of built heritage and with the support of the Technical Committee, the Practice Guidebook was further enriched in December 2017 with more successful heritage conservation projects as case references and relevant parts on the precautionary measures, sequence of works, qualified site supervision and monitoring of the effects of the construction works have also been reinforced for assuring safety.



Former Central Police Station (Tai Kwun) was revitalised to a centre for heritage and arts.



Mei Ho House before (left) and after (right) revitalisation

Engagement with the Community

We strive to raise public awareness and understanding about the importance of building safety. In 2017, we launched a series of educational activities to bring together different sectors of the community.

Highlights of Stakeholder Engagement





Building Safety Talks

- **40** For Education Sectors
- **34** For Stakeholders in Building Owners and Industry
- 15 District Talks



Visits to workplaces of BD and related Building Professionals



Building Safety Day Camp

Building Safety Pioneer Programme (BSPP)

- **67** Secondary Students appointed as Building Safety Pioneers (BSPs)
- 7 Workplace Visits arranged
- **5** Activities arranged
- 12 Promotional videos produced



"Building Safety on Board" Board Game Design Competition

Co-organised with HKEdCity in October 2017

Open to all primary, secondary schools and their parents

4 themes: MBIS, MWIS, MWCS and fire safety



BSW Opening Ceremony



The BIG Kiosk displayed in Estates

Building Safety Week (BSW)

Opening Ceremony > 700 Visitors

Building Safety Symposium > 500 Guests

Exhibition / TV Programme > 41 000 Visitors / Views

Mini Movies > 53 000 Views





"Home Safe Home • Home Sweet Home" **Comic Drawing Competition**

- **88** Entries Winning Entries
- **3** Winning Entries were produced into Animated Short Films



Building Safety Certificate Course (BSCC)

3 Courses established since 2015

Overall Satisfaction Rate of > 90%

Launched Building Safety Advanced Certificate Course (BSACC) in Feb 2017 as a Continuation of BSCC

166 Certificates were issued for BSCC

99 Certificates were issued for BSACC





Building Management Week 2017

Co-organised with the Water Supplies Department, the Electrical and Mechanical Services Department, the Fire Services Department and the Home Affairs Department in September to promote a culture of quality building management in Hong Kong.

In 2017, BIC provided up to 104 000 cases of inspections and 225 000 cases of copying services of building or minor works records and occupation permits for all existing private buildings except pre-war buildings, exempted houses in the New Territories and previous Housing Authority buildings sold or disposed of to the private sector such as Home Ownership Scheme buildings, Tenants Purchase Scheme buildings and Link properties. BD arranged public seminars, tours and visits to the newly refurnished BIC, strengthening public awareness on building safety with new elements like art installations and educational displays.





BIC visit for

Public Engagement across Multiple Channels

To enhance the awareness of the community on the importance of building safety and timely maintenance, we continued to use mainstream channels including newspaper, radio, television and various media networks to disseminate building safety messages. For instance, BD and the FEHD have joined hands to promote the importance for property owners to maintain their buildings as well as proper methods to handle household seepage problems through creating a 30-second TV and radio Announcement in the Public Interests (APIs). On top of the above channels, we are proactive in embracing a range of other social channels including mobile application, Facebook page, YouTube channel and Building Safety Quarterly newsletters to share significant information with our stakeholders.

Broadcasts

A total of 7 TV and radio APIs were broadcasted at Mass Transit Railway (MTR) stations and train compartments throughout the year and on Roadshow and Buspak in-bus TVs until June 2017 to promote general building safety messages to the public.

Our promotional focus in 2017 was on "Identification Cards for Qualified Persons" under the MWIS. A TV API and a poster on this theme was frequently broadcasted and displayed at MTR stations, train compartments and public transports from January to May, reminding building owners to check whether the persons who carry out window inspections and supervise window repair works at their premises are qualified persons.

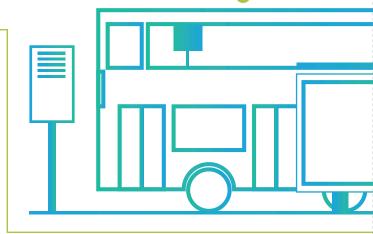




BD Mobile App

In March 2017, BD launched the smartphone mobile application for its thematic website "Care for your building". BD's official website also had a new homepage to help the public to search for building safety-related information.





Outdoor Banner and Posters

The banner "It's Dangerous living in Subdivided Flats in Industrial Buildings" was displayed on the bus body of Kowloon Motor Bus, New World First Bus, Citybus and minibuses and also at parks under Leisure and Cultural Services Department annually to arouse public awareness of the importance of choosing flats which are safe for living.











Publications

We published Building Safety Quarterly newsletters and monthly digest to share useful information with our stakeholders.







BD has established and regularly updates its Facebook page and YouTube channel to provide safety tips and event updates to the public.



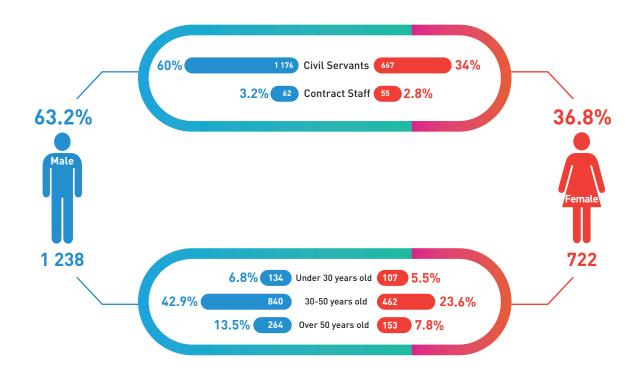


HUMAN CAPITAL STRATEGY

We recognise our people are the most important asset of BD. As such, we are committed to nurturing a diverse, competent and dedicated talent pool that can serve the industry and community sustainably. We also place strong emphasis to provide a dynamic, healthy and safe working environment for our staff.

Staff Profile

As at 31st December 2017, we have over 1 960 staff located in various offices.



Employment Practice

BD strictly complies with all the relevant laws and regulations with regards to staff appointment. We are an equal opportunity employer ensuring that every employee is treated with fairness in recruitment, remuneration, benefits, promotion and compensation without any kinds of discrimination, such as gender, race, age, religion, or disability. We take rigorous measures to prevent the appointment of child labour

and forced labour from all our operation and that of our consultants and suppliers. If our staff have concerns about unlawful labour practice within BD, they can report to their seniors or the Departmental Administration Section directly. All reported cases will be reviewed and investigated independently, and we will take appropriate actions according to regulation if there is any violation of regulations.

Our staff's remuneration scales are reviewed annually in respective annual pay adjustment exercise. Each staff member will undergo annual performance appraisal to ensure they are rewarded based solely on their performance and competence.

Staff Integrity

Upholding a high level of ethical standards and professional integrity are fundamental values that we seek in our staff. We adhere to the Prevention of Bribery Ordinance and all relevant government and departmental guidelines, which lay down the internal framework and requirements for the declaration of private investments, avoidance of conflict of interest, and acceptance of advantages and benefits.



Training and Development

We believe continuous learning and development is vital to building internal strength at BD. We organise a wide range of in-house training programmes and provide subsidies for attending external training for our staff according to their specific skills and development needs.

Other than regular in-class training and local site visits, we also organise study mission to different countries in order to keep learning from the fast-changing world. For instance, in support of the Government's direction to develop MiC, our staff joined visits to Singapore together with members of the other government departments.





A total of 212
officers attended BEAM Pro
Training to support green
building development

Knowledge Management System

To better communicate and manage the knowledge and information within BD, we undertook an Electronic Information Management Strategy study in 2014. Since then, we have set up the "BD Knowledge Hub" to share and centrally store the knowledge-based information for staff reference. Our Research & Development Unit collects, updates and uploads useful information to the Hub regularly, which enables our staff to create, share, use and manage our resources and information more effectively.

We started to develop the Electronic Document and Knowledge Management System (eDKMS) in April 2016, which would provide the knowledge management capability and departmental collaboration platform to facilitate the collaborative effort within/across divisions in BD.

Occupational Health and Safety

Occupational health and safety is always our top priority. We have established guidelines and policies stipulating risk management and instructions related to workplace hazards. We established a Departmental Occupational Safety and Health (OSH) Committee in 2017 with the aim of enhancing safety and health at work. The BD is committed to maintaining a climate of safety awareness and has put in place operational safety guidelines, policies and training that lead to continuous improvement in OSH performance.

Not only paying attention to the immediate health and safety risks, we also place great emphasis to improving the wellness of our staff at the workplace. For instance, in the design of the BD's new headquarters at the West Kowloon Government Offices (WKGO), we will adopt low furniture and partition screens to maximise exterior vision. In addition, we will provide adjustable computer monitor arms for better ergonomics for our staff looking at the screens. Green walls and planters will also be installed to improve the air quality of the office.

258 Staff attended 67 OSH Courses 2031 Training Hours

Achieving Work-life Balance

We encourage our staff to participate in different recreational and volunteering activities to achieve work-life balance. Our BD Staff Recreation Club organises different activities for our staff, their families and friends, such as sports classes and competitions. In addition to our own music band, B an D Band and choir group, Oasis, we have also formed a ukulele squad during the reporting year. They have been performing in different BD and external events.

Sports & Competitions

During the year, table tennis and badminton inhouse tournaments were organised to encourage staff in performing physical exercises and meeting fellow colleagues with common interest. We are proud to have our winning teams representing BD to compete in industry events and competitions. Our staff demonstrated excellent sportsmanship and unity in these events, showing our peers the strong bonding amongst us.



Ukulele Squad Formed



BD's Sport Teams Awards Presentation Ceremony



Dragon Boat Racing at Shatin



DEVB Swimming Gala



Bowling Team won the trophy at the 18th Departmental Three-person Team Bowling League



BD Team Building Training at Sai Kung



DEVB Running Event 2017



Our table tennis team



Our badminton team

Volunteering and Charitable Contribution

As a responsible corporate citizen, we are committed to strengthen our relationship with the community by participating in a wide range of charitable work. In 2017, our volunteer team offered assistance to those in need, in particular, with focuses on children and youngsters, elderly, low-income families, people with disabilities and ethnic minorities.



was awarded the Volunteer Service

About Volunteers Activites coordinated / organised/ participated





To help youth from disadvantaged backgrounds, BD

continued to participate in the "Life Buddies" Mentoring Scheme, organised by The Commission on Poverty. With an aim to inspire students with career aspirations, we provided all-rounded mentoring programmes such as tailor made orienteering activities for Yuen Long Merchants Association Secondary School Alumni, arranged visits to BIC and building consultant firms,



Orienteering with Yuen Long Merchants ssociation Secondary School Alumni

and organised induction briefing, workshop and mock job interviews for students at the Lok Sin Tong Wong Chung Ming Secondary School.





Induction briefing, workshop and mock job interview a Lok Sin Tong Wong Chung Ming Secondary School

In the spirit of caring for the elderly, our volunteer team regularly visited elderly care homes to spread our love and care in the local communities.



Visited a home for the elderly at Cho Yiu Cheun in July 2017



Visited a home for the elderly at Shek Lei (I) Estate in May 2017

In May this year, we delivered a remarkable performance at the Construction Industry Charity Concert 2017, fund raising for the Construction Charity Fund.



Performing at the Construction Industry Charity Concert 2017

We also participated in a Charity Walk fund raising for The Society of Rehabilitation and Crime Prevention, Hong Kong in October, with an aim to providing

quality rehabilitation and multifarious services for the betterment of ex-offenders, for the prevention of crimes and the mental wellness of persons in need.



Conferred with the Top Fundraising Organisations Award and the Champion of 10km Challenge Run (Organisation Team)

GREEN OFFICE

We are committed to complying with environmental protection ordinances and regulations related to our operation. Being constantly aware of changing energy and environmental regulations, we conduct routine office inspections to ensure we are in full compliance with applicable environmental laws and regulations.

We uphold accountable and measurable sustainability initiatives covering energy conservation, carbon reduction, waste management, indoor air quality and paperless measures in order to structure an environmentally and staff-friendly working space for our staff and to minimise environmental impacts due to our daily operation. Staff is our key component and we have designed initiatives and awareness trainings to improve their wellness and working environment.

We continuously explore methods to reduce our carbon footprint. Energy consumption takes up the largest proportion in our carbon footprint and so we have implemented energy efficiency initiatives in facilities and our daily operations. Green awareness is another area we have adopted to improve our sustainable performance. In 2017, we arranged a total of 40 seminars and conferences and 5 site visits in building sustainability for 581 staff.

In recognition of our contribution in green management, we attained a Certificate of Merit in the Public Services Sector in the Hong Kong Awards for Environmental Excellence (HKAEE) 2016.



Certificate of Merit in the 2016 HKAEE

Consumption and Emission at a Glance

| 4 | Electricity consumption and related air pollutant emission | 2016 | 2017 |
|----------------|--|--------------|--------------|
| ₹ ŒD | Electricity Consumption (kw/h) | 3.27 million | 3.13 million |
| <u>(50</u> 2) | Sulphur Dioxide (SO ₂) (kg) | 6 254 | 5 981 |
| NOx | Nitrogen Oxides (NO _x) (kg) | 3 798 | 3 632 |
| RSP | Respirable Suspended Particulates (RSP) (kg) | 196 | 188 |
| RAPA | Fuel consumption and related air pollutant emission | 2016 | 2017 |
| a | Fuel Consumption (litres) | 46 346 | 48 277 |
| [KM] ✓ | Distance Travelled (km) | 494 964 | 481 516 |
| NOχ | Fuel Nitrogen Oxides (NOx) (kg) | 445 | 433 |
| KG\ | Fuel RSP (kg) | Negligible | Negligible |

Green Measures

To manage our offices, we have assigned 58 representatives from each Section or Unit as Energy Wardens to remind colleagues of BD's green measures. We believe environmental awareness can be built up through continuous training and exposure to best practices. In addition, BD developed and deployed environmental management programmes specifically designed to reduce the environmental impact in our office and operation.

Energy

In the energy sector, policies and measures have been implemented in our facilities, daily operation and awareness building to reduce our energy consumption.

In our offices, we have regularly monitored and maintained air-conditioning at 25.5°C, replaced old lighting fixtures with T5 fluorescent lamps and installed motion sensors where applicable in our offices while using electrical devices and equipment with higher rating energy saving labels. We have introduced no bottled water policy since 2016, and installed filtered water dispensers in our offices for both staff and visitors. In 2017, we have managed to reduce electricity consumption by 4.36% as compared to 2016.

Energy conservation initiatives also applies to our daily

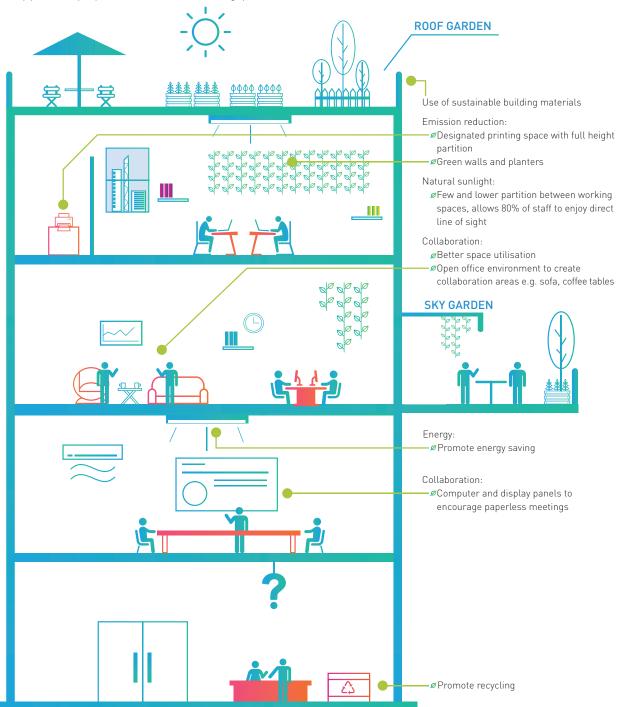
operation, for example, sleep mode for all computers and applicable office equipment, time control and stand-by mode for appliances and we endeavour all appliances are turned off at the end of the day. Our Energy Wardens take the responsibility to arrange for the last-man-out to switch off lighting and devices at the end of the day and conduct walk through each quarter to identify area requiring improvement.

As a green reminder to staff, "Energy Saving" stickers are displayed to encourage turning off unnecessary lights, air-conditioners and equipment when not in use. For inter-floor traffic in office, we encourage staircases instead of elevators. Staff may wear business casual attire in summer months to minimise the demand for air conditioning. We continuously supported the Biz-Green Day 2017 which is an event organised by CIC and HKGBC since 2013.

New Office Design Highlights

We are in preparation to relocate our headquarters in early 2019, to WKGO. The new office will occupy 14 floors with a roof garden and a sky garden. BD believes a green office design will create positive impact on staff wellness and productivity. It is therefore important to ensure the office surroundings will fit and support employees' needs while being pleasant

and visually appealing. With such design objective, our new office will reduce barriers to create an open office environment and facilitate communication and collaboration. In addition, we also aim to attain BEAM Plus Interior certification for 2/F of the WKGO where our BIC will be located.



Indoor Air Quality (IAQ)

IAQ is an important aspect for BD. In 2017, we engaged a qualified contractor to conduct annual IAQ measurement in our offices. We have been adopting various arrangements to enhance IAQ in our offices and conducting preventive maintenance and repairs to the ventilation and air conditioning system. In addition, we encourage staff to nurture small plants in the office to bring more green elements while improving the air quality in office.

We have joined the Clean Air Charter since 2006 and pledged to reduce emissions continuously. BD endeavours to achieve good IAQ for the health and productivity of our staff. Since 2011, BD has joined the IAQ Certification Scheme and seven BD offices were awarded the "Good" IAQ Class in 2017. We will maintain for "Good" IAQ class for all BD offices in the coming year.

Seven BD Offices attained the Good IAQ Class of the IAQ Certification Scheme (as of September 2017)

Cityplaza Three, 14 Taikoo Wan Road, Taikoo Shing, Hong Kong

Metroplaza Tower 1, 223 Hing Fong Road, Kwai Fong, New Territories

Chow Tai Fook Centre, 580A Nathan Road, Mongkok, Kowloon

Kwun Tong View, 410 Kwun Tong Road, Kwun Tong, Kowloon

AIA Kowloon Tower, 100 How Ming Street, Kwun Tong, Kowloon

Millennium City 2, 378 Kwun Tong Road, Kwun Tong, Kowloon

Pioneer Centre, 750 Nathan Road, Mongkok, Kowloon



Carbon Footprint

Despite our major environmental footprint in office, BD has taken a proactive approach to minimise carbon emission by streamlining our transportation. We have adopted clean-energy vehicles including electric vehicles (EV) and hybrid electric vehicle in our vehicle fleet. However, there was an increase of 7.07% in

fuel consumption per km in comparison with that of 2016. This is primarily due to the replacement of two EV by petrol vehicles on a temporary basis during its maintenance. Up to date, 30% of BD-owned vehicles are electrical (including hybrid electric vehicles).



The Choice of Commutation

To walk, cycle or use public transport to office instead of driving, in order to reduce greenhouse gas emission as much as possible



EV First

To give priority in utilising EV and hybrid electric vehicles prior to other departmental vehicles



Trip Arrangements

To combine trips and plan for the shortest route distance to optimise the use of departmental vehicles

Waste Management

To minimise waste at source, BD issued an administration circular on "Green Practices and Waste Avoidance" to remind all staff to adopt green practices and waste avoidance measures. Some of the waste avoidance practices include:



For unavoidable waste, we will recycle whenever possible. Collection bags were placed in offices for paper recycling. With the support from our staff, we collected a total of 49 995.8 kg waste paper for recycling in 2017, representing a decrease of 51.68% when compared to 2016. The decrease in waste paper collection was due to reduced use of paper in the office.

We also try to minimise waste generation whenever there is office refurbishment or renovation. In 2017, we reused old furniture to meet office requirement as far as possible to cut down waste generation.



Waste paper collection and reuse of old chairs in our office

Green Procurement

We actively support the green procurement policy advocated by the Government. We have followed the government green specifications to purchase green products as far as possible. As of 2017, BD has already included 35 commonly procured products with green

consideration during tendering process. These products include printers with toner saving and double-side printing mode, gloves, garbage collection bins, ink for stamp pads and recycled paper.



Among all, the percentage of recycled paper purchased is 41% in 2017.







For all the Works Contracts administered by BD, contractors are required to comply with environmental regulatory requirements such as the proper disposal of C&D wastes. Conformance to their environmental management plan and the use of environmental-friendly products will also be monitored during

contract implementation and reflected in contractors' performance reports. BD Contractor's performance in environmental pollution control will be assessed quarterly by the case officer of respective Works Order. The items that would be assessed are listed as follows:

Adequacy of water pollution mitigation measures
 Adequacy of noise pollution mitigation measures
 Adequacy of waste pollution avoidance measures
 Compliance with environmental enactments
 Action taken to remedy non-compliance
 Implementation of Trip-ticket System to control disposal of C&D materials

Resource Conservation

To maintain an environmental friendly operation in our offices, we made use of Internet of Things (IoT) and introduced computerised management systems to facilitate electronic communication internally and externally with our stakeholders and public.

Internal Communication

In our workplace, we have implemented paper saving initiatives to reduce paper consumption. For instance, e-leave application replaces traditional paper approval process and electronic devices replaces paper documents during meetings. In future, we anticipate to further reduce paper consumption and enhance our documentation process through the eDKMS.

To facilitate site inspection and Registration Committee meetings, mobile devices had been deployed to staff and members of the Committee to access electronic inspection forms and application documents. With addon feature "Pulse Secure" app, colleagues can access BD Handbook and Instructions, internal manuals, etc.

in their mobile devices. We also maintain a web-based photo library system to facilitate the sharing of site inspection photos within our department.



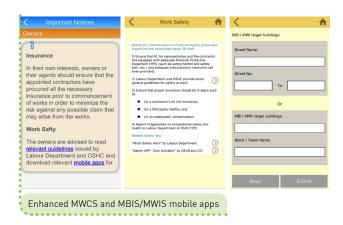
External Communication

Currently, our website is under revamp and is expected to be launched by the end of December 2018. Latest website technology including responsive web design with linkage to social media would be applied to enhance our communication with the public. Since 2016, a total of 121 forms were converted to electronic format in the Electronic Form Submission System (EFSS). Some specified forms were designed with QR code for registered building professionals and registered contractors to submit the forms online with digital signature. Online forms save time, printing and postal

need throughout the process. In 2017, BD handled 553 310 forms submission, out of which 66 613 (about 12%) were processed by EFSS. Development of EFSS 2.0 will commence from August 2018 to upgrade and add new features like e-payment.

BD is preparing for the development of a new electronic submission system, Electronic Submission Hub, for processing of electronic building plans and documents as well as applications from the public, registered building professionals and registered contractors.

Both MWCS and MBIS/MWIS mobile apps were enhanced to include information in labour safety and insurance. Also, a notice searching function was introduced to enhance user experience.



BD website is linked to the Buildings Records Access and Viewing On-line (BRAVO) system, which allows the public to view building records. In 2017, BD handled 104 000 applications for viewing electronic records (include minor works records), out of which 86 000 (over 82%) were processed on-line through the BRAVO system.



PERFORMANCE SUMMARY

| Energy Consumption | | | |
|--------------------|------------------|----------------------------|--|
| | Unit | 2017 | |
| Gasoline | GJ (Litre) | 1 594 (48 277) | |
| Electricity | GJ (Million kWh) | 11 273 ¹ (3.13) | |

| Greenhouse Gas (GHG) Emissions² | | | |
|---|-------------|---------------------|--|
| | Unit | 2017 | |
| Gasoline combustion (Scope 1) | Tonnes CO₂e | 116.06 ³ | |
| Electricity purchased (Scope 2) ⁴ | Tonnes CO₂e | 2 192.01 | |

| Material consumption | | | |
|---|------|--------|--|
| | Unit | 2017 | |
| Total paper consumption | kg | 72 981 | |
| A4 paper | kg | 68 164 | |
| A3 paper | kg | 4 818 | |
| Paper consumed per staff (By establishment) | kg | 37.2 | |

| Waste Management | | | |
|--|--------|----------|--|
| C&D materials | Unit | 2017 | |
| C&D waste disposed of to landfills | 10³ kg | 319 | |
| C&D waste disposed of to public fill areas | 10³ kg | 1 060 | |
| Recyclable waste collected | | | |
| Waste paper | kg | 49 995.8 | |

¹ Total electricity consumption was calculated per electricity bills received from January 2017 to December 2017.

² GHG emissions were calculated 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 and Electrical and Mechanical Services Department in February 2010.

³ Generated from mobile combustion of petrol i.e. vehicle consumption.

⁴ The GHG emission was calculated based on a territory-wide default value of 0.7kg/kWh.

| Social Performance | | | |
|------------------------|------|-------|--|
| Staff Breakdown | Unit | 2017 | |
| No. of staff | No. | 1 960 | |
| By Post | | | |
| Professional grade | % | 32.8 | |
| Technical grade | % | 34.8 | |
| General grade | % | 32.4 | |
| By Employment Type | | | |
| Full-time | % | 100 | |
| Part-time | % | 0 | |
| By Employment Contract | | | |
| | No | 1 176 | |
| Permanent (male) | % | 60.0 | |
| 5 . (6 . 1) | No | 667 | |
| Permanent (female) | % | 34.0 | |
| Control (male) | No | 62 | |
| Contract (male) | % | 3.2 | |
| Contract (female) | No | 52 | |
| Contract (lemate) | % | 2.8 | |
| By Age | | | |
| Age under 30 | No | 241 | |
| Age under 50 | % | 12.3 | |
| Age 30-50 | No | 1 302 | |
| Age 30 30 | % | 66.4 | |
| Age 50 or above | No | 417 | |
| Age of above | % | 21.3 | |
| By Region | | | |
| Local | % | 100 | |
| Non-local | % | 0 | |
| By Gender | | | |
| Male | No | 1 238 | |
| Mate | % | 63.2 | |
| Female | No | 722 | |
| i eniale | % | 36.8 | |

| ☐ Training Hours Breakdown ⁵ | | |
|---|-------|--------|
| Training | Unit | 2017 |
| Courses | No. | 986 |
| Total participants | No. | 8 937 |
| Training hours received | Hours | 46 885 |
| Average training hours per staff | Hours | 23.9 |

| Type of Staff | No. of Staff | Training Hours Received (Hours) | Training Hours Per Staff (Hours) |
|--------------------|--------------|------------------------------------|-------------------------------------|
| By Post | | | |
| Professional grade | 642 | 27 734 | 43.2 |
| Technical grade | 682 | 14 476 | 21.2 |
| General grade | 636 | 4 655 | 7.3 |

| Staff Turnover | | | |
|----------------|------|------|--|
| Gender | Unit | 2017 | |
| | No. | 103 | |
| Male | Rate | 8.3% | |
| Female | No. | 58 | |
| | Rate | 8.0% | |

 $^{5 \ \}text{Average hours of training per employee by gender were not reported since we do not have distinct corresponding requirement.}$

| Staff Turnover | | | |
|----------------|------|-------|--|
| Age Group | Unit | 2017 | |
| | No. | 33 | |
| Age under 30 | Rate | 13.7% | |
| Age 30-50 | No. | 73 | |
| Age 30-50 | Rate | 5.6% | |
| Age over 50 | No. | 55 | |
| | Rate | 13.2% | |
| Total | No. | 161 | |

| New Employee Hires | | |
|--------------------|------|-------|
| | Unit | 2017 |
| Gender | | |
| Male | No. | 90 |
| Mate | Rate | 7.3% |
| Female | No. | 45 |
| remate | Rate | 6.2% |
| Age Group | | |
| Age under 30 | No. | 54 |
| Age under 50 | Rate | 22.4% |
| Age 30-50 | No. | 69 |
| Age 30-30 | Rate | 5.3% |
| Age over 50 | No. | 12 |
| Age over 30 | Rate | 2.9% |
| Total | No. | 135 |

| Occupational Safety and Health Statistics | | | |
|---|------------------|--------------------|--|
| | Unit | 2017 | |
| Absentee Rate ⁶ | | | |
| Total | % | 1.65 | |
| Lost Day Rate ⁷ | | | |
| Male | Per 100 employee | 0.34 | |
| Female | Per 100 employee | 35.80 ⁸ | |
| Injury Rate ⁹ | | | |
| Male | % | 0.08 | |
| Female | % | 0.29 | |
| Occupational Disease Rate ¹⁰ | | | |
| Male | % | 0 | |
| Female | % | 0 | |
| Number of Fatalities | | | |
| Male | % | 0 | |
| Female | % | 0 | |

Remark: The rates of lost days, injury and occupational diseases were calculated based on the number of incidents to the total time worked by 100 employees.

⁶ Refers to a measure of actual absentee days lost expressed as a percentage of total days scheduled to be worked by the workforce for the same period.

Refers to the impact of occupational accidents and diseases as reflected in time off work by the affected workers by comparing the total lost days to the total number of hours scheduled to be worked by the workforce in the reporting period.

⁸ The relatively high female lost day rate is mainly due to office injuries of 1 officer who was granted approximately 5 months of sick leave.

⁹ The frequency of injuries relative to the total time worked by the total workforce in the reporting period.

¹⁰ The frequency of occupational diseases relative to the total time worked by the total workforce in the reporting period.

| Labour compliance | | | | |
|--|------|------|--|--|
| | Unit | 2017 | | |
| Complaint on breached of labour practices / laws | No. | 0 | | |
| Complaint resolved | No. | 0 | | |

| △ Legal Compliance | | |
|-------------------------------|------|------|
| | Unit | 2017 |
| Convicted cases of corruption | No. | 0 |

| Social Compliance | | | |
|---|------|------|--|
| | Unit | 2017 | |
| Convicted cases of non-compliance with laws or regulation | No. | 0 | |
| Significant fines | HK\$ | 0 | |

GRI CONTENT INDEX

This Report was prepared in accordance with the Core option requirements of GRI Sustainability Reporting Standards (GRI Standards). The General Standard Disclosures and specific Standard Disclosures are presented in the following table with either corresponding reported section(s) or direct comments.

Organisational Profile

| GENERAL DISCLOSURES | | | | |
|--------------------------------|------------------------|--|---|-----------------------|
| GRI Standards | General Disclosures | Description | Cross-reference / Comments / Reasons for Omissions | External Assurance |
| | ORGANISATION | IAL PROFILE | | |
| | 102-1 | Name of the organisation | About this Report | ✓ |
| | 102-2 | Activities, brands, products, and services | Sustainable Organisation | ✓ |
| | 102-3 | Location of headquarters | Buildings Department 12/F Pioneer Centre 750 Nathan Road, Mong Kok, Kowloon | ~ |
| | 102-4 | Location of operations | Sustainable Organisation | ✓ |
| | 102-5 | Ownership and legal form | Sustainable Organisation | ✓ |
| | 102-6 | Markets served | Sustainable Organisation | ✓ |
| | 102-7 | Scale of the organisation | Sustainable Organisation | ✓ |
| GRI 102: | 102-8 | Information on employees and other workers | Human Capital Strategy | ✓ |
| General Disclosures 2016 | 102-9 | Supply chain | Sustainable Organisation Suppliers include consultants and contractors engaged by BD. They are mainly involved in provision of parts/ equipment and services related to BD's installation, operation and maintenance. | ~ |
| | 102-10 | Significant changes to the organization and its supply chain | There was no significant changes regarding the organisation's size, structure, ownership, or its supply chain | ✓ |
| | 102-11 | Precautionary Principle or approach | Sustainable Organisation | ✓ |
| | 102-12 | External initiatives | Sustainable Organisation | ✓ |
| | 102-13 | Memberships of associations | Sustainable Organisation | ✓ |
| | STRATEGY | | | |
| | 102-14 | Statement from senior decision-maker | Director's Message | ✓ |

| GRI Standards | General Disclosures | Description | Cross-reference / Comments / Reasons for Omissions | External Assurance | | |
|--------------------------------|------------------------|---|--|-----------------------|--|--|
| | ETHICS AND INTEGRITY | | | | | |
| | 102-16 | Organisation's values, principles, standards and norms of behaviour | Sustainable Organisation | ✓ | | |
| | GOVERNANCE | | | | | |
| | 102-18 | Governance structure | Sustainable Organisation | ✓ | | |
| | STAKEHOLDER | RENGAGEMENT | | | | |
| | 102-40 | List of stakeholder groups | Sustainable Organisation | ✓ | | |
| | 102-41 | Collective bargaining agreements | There is no collective bargaining legislation exists in Hong Kong but we have maintained various staff engagement channels. | ~ | | |
| | 102-42 | Identifying and selecting stakeholders | Sustainable Organisation | ✓ | | |
| | 102-43 | Approach to stakeholder engagement | Sustainable Organisation | ✓ | | |
| | 102-44 | Key topics and concerns raised | Sustainable Organisation | ✓ | | |
| GRI 102: | REPORTING PR | RACTICE | | | | |
| General Disclosures 2016 | 102-45 | Entities included in the consolidated financial statements | Sustainable Organisation | ✓ | | |
| | 102-46 | Defining report content and topic Boundaries | Sustainable Organisation | ~ | | |
| | 102-47 | List of material topics | Sustainable Organisation | ✓ | | |
| | 102-48 | Restatements of information | There is no re-statement in this Report. | ✓ | | |
| | 102-49 | Changes in reporting | There is no significant change in reporting. | ✓ | | |
| | 102-50 | Reporting period | About this Report | ✓ | | |
| | 102-51 | Date of most recent report | About this Report | ✓ | | |
| | 102-52 | Reporting cycle | About this Report | ✓ | | |
| | 102-53 | Contact point for questions regarding the report | Feedback | ✓ | | |
| | 102-54 | Claims of reporting in accordance with the GRI Standards | About this Report | ✓ | | |
| | 102-55 | GRI Content Index | GRI Content Index | ✓ | | |
| | 102-56 | External Assurance | About this Report | ✓ | | |

| TOPIC-SPECIFIC STANDARDS | | | | |
|---|-------------------------|---|--|-----------------------|
| GRI Standards | Material Topics | Description | Cross-reference / Comments / Reasons for Omissions | External Assurance |
| | | ECONOM | IC | |
| INDIRECT ECO | NOMIC IMPACTS | | | |
| GRI 103 Management Approach 2016 | 103-1 103-2 103-3 | Management Approach | Sustainable Organisation Sustainable Built Environment | ✓ |
| GRI 203 | 203-2 | BD endeavors to create positive economic impacts on the society and Significant indirect industry through knowledge transfer economic impacts and experience sharing. Please refer to the Chapter Sustainable Built Environment for more details. | | ~ |
| GRI 103 | 103-1 103-2 103-3 | Management Approach | Human Capital Strategy | ✓ |
| GRI 205 | 205-3 | Confirmed incidents of corruption and actions taken | Performance Summary | ✓ |
| | | ENVIRONME | NTAL | |
| MATERIALS | | | | |
| GRI 103 Management Approach 2016 | 103-1 103-2 103-3 | Management Approach | Sustainable Organisation | ✓ |
| GRI 301 | 301-1 | Materials used by weight or volume Performance Summary | | ✓ |
| ENERGY | | | | |
| GRI 103 Management Approach 2016 | 103-1 103-2 103-3 | Management Approach | Sustainable Organisation Green Office | ✓ |
| GRI 302 | 302-1 | Energy consumption within organisation Performance Summary | | ✓ |
| SUPPLIER ENVIRONMENTAL ASSESSMENT | | | | |
| GRI 103 Management Approach 2016 | 103-1 103-2 103-3 | Management Approach | Sustainable Organisation | ✓ |
| GRI 308 | 308-2 | Negative environmental impacts in the supply chain and actions taken | The successful suppliers are requested to follow the green specifications / criteria as far as possible. No new suppliers have been screened so far. There were no major environmental incidents reported during 2017. | ✓ |

| SOCIETY | | | | | |
|---|-------------------------|--|---|----------|--|
| EMPLOYMENT | EMPLOYMENT | | | | |
| GRI 103 Management Approach 2016 | 103-1 103-2 103-3 | Management Approach | Sustainable Organisation Human Capital Strategy | ~ | |
| GRI 401 | 401-1 | New employee hires and employee turnover | Performance Summary | ✓ | |
| OCCUPATIONAL | . HEALTH AND SA | AFETY | | | |
| GRI 103 Management Approach 2016 | 103-1 103-2 103-3 | Management Approach | Human Capital Strategy | ~ | |
| GRI 403 | 403-2 | Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities | Performance Summary | ✓ | |
| TRAINING AND | EDUCATION | | | | |
| GRI 103 Management Approach 2016 | 103-1 103-2 103-3 | Management Approach | Human Capital Strategy | ~ | |
| GRI 404 | 404-1 | Average hours on training per year per employee | Performance Summary | ✓ | |
| FREEDOM OF A | SSOCIATION AND | COLLECTIVE BARGAINING | | | |
| GRI 103 Management Approach 2016 | 103-1 103-2 103-3 | Management Approach | Sustainable Organisation Human Capital Strategy | ~ | |
| GRI 407 | 407-1 | Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk | In 2017, BD did not identify any operations and suppliers in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk. | ✓ | |
| SOCIOECONOMIC COMPLIANCE | | | | | |
| GRI 103 Management Approach 2016 | 103-1 103-2 103-3 | Management Approach | Sustainable Organisation | ✓ | |
| GRI 419 | 419-1 | Non-compliance with laws and regulations in the social and economic area | Performance Summary | ✓ | |

INDEPENDENT ASSURANCE STATEMENT



Introduction:

TÜV Rheinland Hong Kong Limited, member of TÜV Rheinland Group, Germany (TÜV, We) has been commissioned by the Buildings Department (BD) of the Hong Kong Special Administrative Region (HKSAR) to conduct independent assurance of BD's Sustainability Report 2017 (the Report). All contractual contents for this assurance engagement rest within the responsibility of BD. Our task was to give a fair and adequate judgment on BD's Sustainability Report 2017.

The intended readers of this assurance statement are stakeholders having relevance to BD's overall sustainability performance and impacts of its operations during 2017 (1 January to 31 December 2017). We have maintained complete impartiality and independence during the assurance engagement and were not involved in the preparation of report contents.

Scope of Assurance:

Our Assurance engagement covers the following:

- BD's sustainability performance as described in the Report in accordance with Global Reporting Initiative (GRI) Standards: Core Options; and
- Evaluation of disclosed information in the Report as per the Assurance Methodology.

Limitation:

The assurance engagement was carried out at BD Headquarters at Pioneer Centre, 750 Nathan Road, Mong Kok, Kowloon, Hong Kong. The consultations with external stakeholders were not carried out. We did not observe any significant situations to limit our assurance activity. The verification was carried out based on (i) the data and information provided by BD, assuming they are complete and true; and (ii) interview of the BD's report preparation team, assuming information reliable.

Assurance Methodology:

The Independent Assurance was carried out based on the current best practices and the Report was reviewed against the GRI reporting principles and standards.

TÜV has examined the report contents and assess the process undertaken by BD from source to aggregate in disclosure of information/data related to sustainability performance. Our judgment is based on the objective review of reported information as per the assurance principles and standards.

Analytical methods and the performance of interviews as well as verification of data, were done by random sampling to verify and validate the correctness of reported data and contents in light of contractual assurance agreement. Our work included interviewing BD representatives and report preparation staff. The approach deemed to be appropriate for the purpose of assurance of the Report since all data therein could be verified through document evidences, direct response, and verified database entries.

The Assurance was performed by our multidisciplinary team of experienced professionals in the field of Corporate Sustainability, Environment, Social and Stakeholder Engagement. Our work offers a sufficient and substantiated basis to enable us to come to a conclusion mentioned below and based on the content of our contract. TÜV Rheinland shall not bear any liability or responsibility to a third party for perception and decision about BD based on this Assurance Statement.

Conclusion:

In conclusion, we can mention that no instances or information came to our attention that would be to the contrary of the statement made below:

- BD Sustainability Report 2017 meets the requirement of GRI Standards: Core Options.
- The Report includes statements and claims that reflects BD's achievements and challenges supported by documentary evidences and internal records.
- The performance data we found in the Report are collected, stored and analyzed in a systematic and professional manner and were reasonable.
- The limitation of information collection, disclosure and its omission have been clearly explained and stated in the Report.

For and on behalf of TÜV Rheinland Hong Kong Ltd.

Jasmine Liu

Lead Verifier Systems Greater China Date: 24 January 2019

Thank you for reading our Buildings Department Sustainability Report 2017. Your views and suggestions are most welcome. It will help sustain our policies and support our continuous improvement. Please take a few minutes to give us your views by completing the following feedback form.

| 1 Which of | the following best descr | ihes vou? | | |
|--|----------------------------|----------------------|---------------------------------------|---|
| | - | • | | |
| Government Departments or Agencies | | | Building Profession | |
| 3 | rs and Local District Cou | | General Public | Media |
| Staff of B | uildings Department | | Academic Sector | Student |
| 2. Please ra | te our sustainability rep | ort and perform | nance | |
| Buildings | Department Sustainabi | lity Report 2017 | | |
| Fair | Good | Very Good | Excellent | |
| Ruildings | Department Sustainabi | lity Parformance | | |
| Fair | Good | Very Good | E xcellent | |
| Tall |) 0000 | Very cood | Execution | |
| 3. Which as | pect of the report did yo | u find most usef | ful? | |
| Economic | - | | Governance | Others (please specify:) |
| 2001101111 | 2 | 9 000.41 | 3 3 3 7 3 7 1 3 1 3 3 | , |
| 4. Which as | pect of the Buildings De | partment would | I you like to have more | e information? |
| Economic | Environmental | Social | Governance | Others (please specify:) |
| | | | | |
| If you would | like to receive future rep | oorts/informatio | n from us, please prov | vide your contact details: |
| | | | | |
| Name: | | (| Organisation: | |
| Telephone: | | F | Email Address: | |
| retepriorie. | | | | |
| All personal | information will be use | ed in strictest co | onfidence and for com | munication and statistical purposes only. |
| • | | | | al Data (Privacy) Ordinance. |
| · | | · | | |
| Please retur | n the completed feedba | ck form to Build | ings Department by: | |
| Email: | enquiry@bd.gov.hk | | | |
| Hotline: | 2626 1616 (Handled by | [,] "1823") | | |
| Fax: | 2537 4992 | | | |
| Post: | Buildings Department | Headquarters, | North Tower, West K | owloon Government Offices, 11 Hoi Ting |
| | Road, Yau Ma Tei, Kowl | loon | | |
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