

**For discussion
on 11 June 2012**

**LEGISLATIVE COUNCIL
PANEL ON DEVELOPMENT**

SUBCOMMITTEE ON BUILDING SAFETY AND RELATED ISSUES

**Buildings Department's Review of
Enforcement Procedures and Practices for Dilapidated Buildings
and
Views of Independent Experts**

PURPOSE

This paper presents the findings and recommendations of the review by Buildings Department (BD) of its enforcement procedures and practices for dilapidated buildings, as well as the views of the independent experts appointed by the Secretary for Development to examine the results of BD's review.

BACKGROUND

2. In January 2010, a building at 45J Ma Tau Wai Road collapsed claiming four lives and seriously injuring two other residents of the building. The Coroner subsequently instigated an inquest on the cause of death of the four persons and delivered his findings on 16 August 2011. The Coroner commented on the modus operandi of BD's enforcement action and made the following recommendations on how BD should handle cases involving dilapidated buildings –

- (a) for all cases of emergencies related to buildings (for which BD's pledge is to inspect within three hours) and non-emergency reports on dilapidation of buildings (for which BD's pledge is to inspect within ten days), the inspection should be carried out jointly by a Building Surveyor (BS) and a Structural Engineer (SE);
- (b) if a building is considered as dangerous or liable to become dangerous after inspection, BD should issue repair order immediately instead of issuing advisory letter first; and

- (c) BD should closely monitor the progress of rectification works (through regular inspection, say, every two weeks) to ensure compliance of repair orders.

3. At the meeting of this Subcommittee on 26 August 2011, we provided Members with our initial response to the findings and recommendations of the Coroner, and briefed Members on BD's plan to conduct a comprehensive review of its enforcement procedures and practices for dilapidated buildings (vide Legislative Council paper CB(1)2930/10-11(01)). The Secretary for Development also announced that she would appoint independent experts to examine the results of BD's review. Professor Ko Jan-ming and Mr Daniel Lam Chun, two experts in the fields of structural engineering and building surveying respectively, were subsequently appointed in February 2012. The press release issued by the Development Bureau on the appointment of the two independent experts is at [Annex A](#).

BUILDINGS DEPARTMENT'S REVIEW

Scope of Review

4. BD's review was conducted by a dedicated working group consisting of experienced staff from the two professional grades of the Department, i.e. the BS and SE grades. The review focused on the recommendations made by the Coroner and the Department's enforcement procedure for dilapidated buildings. The detailed scope of BD's review is as follows –

- (a) the conduct of site inspections and handling of emergency cases;
- (b) the need for a joint inspection team consisting of both BSs and SEs to handle reports from the public on building defect/dilapidation;
- (c) the referral of cases for cross-discipline consultation between the BS and SE grades, as well as the corresponding demarcation of responsibilities;
- (d) the practice of issuing advisory letters prior to serving investigation/repair/demolition orders;
- (e) the consideration to be taken account of and timing for serving investigation/repair/demolition orders;

- (f) the follow-up action on complaints received and investigation/repair/demolition orders issued; and
- (g) the administration and monitoring of Government consultants and contractors carrying out investigation and remedial works in cases where the owner defaults in complying with BD's investigation/repair/demolition orders.

Findings and Recommendations

5. Having reviewed BD's internal manuals and guidelines on the seven aspects mentioned above, and after taking into account BD's operational experience, the working group has submitted its findings and recommendations of its review to the Development Bureau (at **Annex B**). The ensuing paragraphs highlight the major recommendations, which are proposed by the working group and have been endorsed by the management of BD.

Procedures for Site Inspection

6. Site inspection plays a critical part in BD's enforcement work for dilapidated buildings as it provides information on whether and what follow-up action needs to be taken by BD and by the building owner. Accordingly, the working group has conducted an in-depth study on BD's existing operational procedures and equipment for site inspections, and has proposed the following enhancement measures that cover the work of BD staff before, during, and after a site inspection –

- (a) **pre-inspection desk study:** As a general practice, BD staff will, on a need basis, carry out a desk-top study on the concerned building before carrying out site inspection. The desk-top study generally covers the structural form of the subject building, the types and details of the important structural elements (such as structural beams and columns), the history of addition and alteration works carried out in the building, etc. This practice serves the important function of highlighting the issues that BD staff may have to focus on during the site inspection. The working group has thus proposed that this practice should be formally incorporated into BD's inspection procedures for all cases except for those involving only minor defects. Guidelines on how the desk-top study should be conducted will also be provided;
- (b) **procedures and tools for site inspections:** Based on BD's enforcement experience, some common structural elements of a building are often covered by decorative materials, such as

wallpaper or other fixtures. Removing these decorative materials is usually necessary if a comprehensive assessment of the structural integrity of a dilapidated building is needed. To provide better guidance to BD staff in deciding whether removal of the decorative materials is necessary, the working group has proposed that clear guidelines be formulated for BD staff's reference. In addition, after a stocktaking exercise on the inspection tools available, the working group has also suggested that a standard inspection tool kit¹, including equipment such as crack meters, spirit levels and small hammers, should be provided to all inspecting officers. A centralised body should be established for up-keeping, procuring and replacing such equipment, as well as to regularly consider the addition of new types of equipment to the standard toolkit; and

- (c) **inspection reports and recommendations on follow-up actions:** BD currently provides a set of comprehensive guidelines to its staff on how the severity of building defects in a building dilapidation case should be classified. Specifically, BD staff are required to provide assessments on the overall dilapidation condition of the exterior and internal structural elements of a building using a severity index scale with four ratings², each of which is linked to a list of specific follow-up actions to be considered by the inspecting officer. The working group has noted that arranging Government contractors to carry out emergency remedial works is only listed as one of the suggested follow-up actions for cases with rating of "IV – Poor". To provide a clearer distinction between cases that require immediate emergency remedial works and those that will require such works only if the building owner fails to carry out the necessary repairs, the working group has proposed that a new rating of "V – Severe" be added to the severity index scale. For cases that fall under this new category, the inspecting officer will need to consider the necessity of carrying out emergency remedial works for the building, as well as whether the situation calls for the issuance of a closure order or demolition order. Clear guidelines, supplemented with photographic examples of typical cases with a rating of "V – Severe", will be provided to staff of BD.

¹ The tools and equipment included are torches, spirit levels, crack meters, cameras, binoculars, small hammers and measuring tapes/electronic distance measuring tools.

² The four ratings are: "I – Acceptable", "II – Moderate", "III – Varied", and "IV – Poor".

Cross-discipline Consultations

7. Under the existing arrangements, site inspections are carried out by BSs, SEs, as well as Survey Officers and Technical Officers of an appropriate rank. While these officers all possess the necessary qualifications and experience for carrying out inspections and providing recommendations on the follow-up action for building dilapidation cases, there are occasions³ which call for the specialised expertise of officers of a particular discipline. For instance, complicated fire safety and building planning issues generally require the professional advice from BSs, whereas in-depth assessments of the structural integrity of buildings generally require that from SEs. There are established guidelines on cross-discipline consultation on building safety-related duties, which include consultation on both fire safety and structural building matters. The guidelines stipulate when and how consultation should be sought and provided.

8. The working group considers that while the existing guidelines already provide an effective mechanism through which specialised expertise of a particular discipline can be obtained, the arrangements can be further strengthened if the guidelines can clearly define those cases that need to go through the process. As the defects and the overall dilapidation condition of a building are classified under the severity index scale mainly by making reference to the structural risks posed by the defects, the working group has suggested that the ratings under the severity index scale can be made reference to in considering whether cross-discipline consultation is required. In particular, the working group has suggested that in-depth structural assessments should be required for cases reaching “IV – Poor” or “V – Severe” in the scale.

Service of Orders and Follow-up Action for Building Dilapidation Cases

9. Another major aspect in the review is how BD follows up on its inspection results and how the progress of BD’s follow-up action is monitored. In general, for non-emergency cases⁴, upon the completion of the site inspection, staff of BD will prepare a report that covers, inter alia, a

³ Based on BD’s experience, cases that call for cross-discipline consultation are rarely encountered. As far as building dilapidation cases are concerned, it is usually possible to decide what follow-up action is required of BD (e.g. immediate remedial works for emergency cases, and advisory letters/statutory orders for non-emergency cases) and the owner (e.g. further investigations and/or repair works) through the building defects identified during the inspection. Detailed structural calculations are only required in a limited number of cases.

⁴ For emergency cases, BD will take immediate follow-up action, such as by arranging Government contractors to carry out the necessary remedial works. The need for issuing closure orders or even demolition orders will also be explored. The procedures and timeframe for BD’s follow-up action for such cases will be flexibly adjusted in the light of the unique circumstances of each individual case.

summary of the defects identified, an assessment⁵ on the severity of such defects and the overall building dilapidation condition, as well as a recommendation on the proposed follow-up action⁶ for the case. After the inspection report is endorsed by a senior officer, advisory letters and/or statutory orders will be prepared. As statutory orders are legal documents, BD has to exercise due care in issuing them and it is therefore necessary for BD staff to verify the ownership of the building before issuing the orders. The working group has proposed various improvement measures to enhance the efficiency and effectiveness of the above process, as well as that of BD's subsequent follow-up and internal monitoring work -

- (a) **timing for serving statutory orders:** BD's existing manuals and guidelines have yet to include a timeline for the issuance of statutory orders. To provide clearer guidance to BD staff, the working group has recommended revising the guidelines to supplement that inspection reports should be submitted for endorsement within one month of the site inspection. Furthermore, statutory orders should be issued within one month after the ownership details of the concerned building are available and, in any event, no later than three months after the endorsement of the inspection report by a senior officer;
- (b) **re-inspection of buildings:** For cases involving statutory orders, staff of BD will carry out a further inspection upon the expiry of the compliance period of the order to ascertain whether the order has been complied with. Depending on circumstances, BD staff may also arrange additional inspections during the compliance period to ascertain if the conditions of the building have changed substantially since the last inspection, and thereby call for different follow-up measures. The working group considers that it would be beneficial to BD's operation if the views of the senior officers of BD could be taken into account in determining whether and how frequently such additional inspections should be conducted. As such, the working group has proposed that the timing for the additional inspections should be included in the inspection report and submitted for endorsement by the senior officers of BD;

⁵ As mentioned in paragraph 6(c) above, detailed guidelines are currently available on how the defects and overall dilapidation condition of a building should be assessed. The guidelines also provide a corresponding list of appropriate follow-up actions for the reference of BD's staff.

⁶ For non-emergency cases, typical follow-up action includes the issuance of advisory letters, investigation orders, and/or repair orders.

- (c) **progress monitoring for building dilapidation cases:** BD has already put in place various mechanisms to monitor the progress of outstanding cases and the performance of Government consultants and contractors. The working group has proposed to strengthen the existing mechanism by ensuring that all cases with outstanding statutory orders will be referred to the sectional monitoring committees, so that progress of these cases will come to the personal attention of the respective Chief Professional Officers who are directorate grade officers of BD. BD is also considering implementing various measures to facilitate, as well as to strengthen the monitoring of the work of its consultants and contractors; and
- (d) **procedural audit:** The working group has noted that BD currently puts a heavy emphasis on the quality of its work through its internal reporting and monitoring system. However, it is equally important for BD to be able to ensure that its manuals and guidelines have been duly followed in the process. The working group has proposed that a procedural audit mechanism on the preparation of inspection reports should be put in place for this purpose.

Recommendations Made by the Coroner

10. One of the main objectives of the review is to thoroughly consider the three recommendations made by the Coroner with respect to BD's enforcement work for dilapidated buildings. The working group's conclusions are as follows –

- (a) **whether BD should ensure that all inspections are jointly attended by both BSs and SEs:** The working group considers that the suggestion of requiring a joint inspection team in every case for a certain category of dangerous building reports may not be an efficient and effective way of deploying resources, as the inspection for most cases can be competently handled by a single officer from BD. For those rare cases that may require specialised expertise from an officer of a particular discipline, BD has already set up an internal cross consultation mechanism to ensure that such professional advice can be solicited in a timely manner. As mentioned in paragraph 8 above, BD will strive to further enhance its guidelines on cross-discipline consultation for better reference by its staff;

- (b) **whether BD should issue repair orders instead of advisory letters first for buildings considered as dangerous or liable to become dangerous:** The working group notes that the issue of advisory letters, with or without a subsequent service of statutory orders, is a practice in BD that aims at reminding the building owner of his due responsibility for his property when BD identifies defects in his building in the course of inspection. As mentioned in paragraph 9 above, time is required for verifying the ownership of the building and preparing the orders as statutory orders are legal documents. Because of this, under the existing practice, in cases where BD decides to issue statutory orders, an advisory letter will be sent to the owner in the first instance to alert him to the dilapidated conditions of his building, notify him that a statutory order will be served shortly and advise him to start the arrangement for the repair works at the earliest time possible. The working group also notes that as the issue of advisory letters and preparation of statutory orders are performed in parallel, and that the issue of advisory letters will not affect the progress of BD's enforcement work in any manner; and
- (c) **whether BD should closely monitor the progress of rectification works to ensure compliance of repair orders:** The working group agrees that the monitoring on the progress of rectification works to ensure compliance of repair orders is necessary and of paramount importance. As such, the working group has recommended that all outstanding cases should be regularly reviewed by BD's sectional monitoring committees.

INDEPENDENT EXPERTS' REVIEW

Scope and Methodology of Review

11. The independent experts are appointed by the Secretary for Development to examine the findings and recommendations of BD's review. As such, the scope of the experts' review also follows the scope listed out in paragraph 4 above. In examining the report of BD's review, the two experts have conducted a comprehensive study of the relevant internal manuals and guidelines of the BD, joined BD staff in conducting site inspection for two cases relating to dilapidated buildings, and met with BD's frontline staff, the working group that has prepared BD's review report, senior management of BD, as well as representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers and the Hong Kong Institute of Surveyors.

Recommendations and BD's Response

12. The independent experts have examined BD's review report and made a number of recommendations. A list of the observations and recommendations made by the experts is set out in the executive summary of the experts' reports at **Annex C**, and a table summarising BD's response to the experts' comments and suggestions is at **Annex D**. The experts' full reports (English only) are already deposited in the Legislative Council Secretariat and uploaded onto the website of Development Bureau⁷. The following paragraphs highlight some of the observations and recommendations made by the experts and the corresponding response from BD –

- (a) **BD's staff training policy:** The two experts have recommended that BD should ensure that a staff training policy is in place and that BD should strengthen the training for its staff, in particular the newly recruited. BD shares the experts' view and will continue to provide structured and regular training to its staff under its Training and Development Framework. BD will also continue to explore how training can best be offered to new members of the Department;
- (b) **New equipment for BD's inspections:** The experts have recommended that BD consider adopting the use of more advanced equipment in its operations. In particular, the experts have suggested that, for cases deemed necessary, BD may remotely monitor the dilapidation conditions of a building through the use of sensory systems operated through the Internet. One of the experts has also suggested that BD should provide equipment to allow staff carrying out site inspection for emergency cases to have remote access to technical information stored in BD's computer database. BD agrees to the recommendations and will proceed to study the feasibility of introducing equipment that may assist BD staff in their inspections;
- (c) **Work of the BD in relation to public education and publicity:** The experts have suggested that BD should step-up its public education and publicity efforts by joining forces with other external bodies, including the professional institutions, District Councils, the Hong Kong Housing Society and the Urban Renewal Authority. BD agrees to this recommendation and will consider how BD's cooperation with the abovementioned organisations can

⁷ The experts' reports can be downloaded at http://www.devb.gov.hk/en/publications_and_press_releases/studies_and_reports/index.html

be strengthened;

- (d) **Dedicated teams for handling public enquiries and complaints:** During the review, the experts have noticed that professional and technical officers in BD are often required to handle public enquiries and complaints. They have thus suggested that BD should consider setting up teams proficient in communicating with the public to handle enquiries and complaints that do not require professional or technical input. BD agrees with this principle and has pointed out that the Department has been enlisting the help of the 1823 Call Centre, which is operated by staff with specialised training in customer service, to handle general public enquiries and complaints for BD. In response to the experts' recommendation, BD will regularly liaise with and review the information provided to the 1823 Call Centre, with a view to better equipping the 1823 Call Centre to handle general enquiries and complaints in relation to BD's work;
- (e) **Review on manpower needs and staffing arrangements:** Apart from reviewing its own enforcement procedures and practices, the experts consider it equally important for BD to regularly review its manpower needs in the light of its workload and performance targets. The experts have also urged BD to consider fine-tuning its staffing arrangements and, in particular, explore the feasibility of having both BSs and SEs in the same team, so as to capture the synergy from having members of both disciplines working in a single team. BD agrees to the experts' recommendations and has pledged to regularly review its manpower needs and consider the feasibility of adopting alternative staffing arrangement proposed by the two experts in its next organisation structural review; and
- (f) **Recommendations from the Coroner:** The experts consider that while BD's response mentioned in paragraph 10 above is reasonable, the recommendations made by the Coroner do provide useful insights on how BD's enforcement procedures and guidelines can be enhanced. On joint inspection by staff of the BS and SE grades, the experts have noted that it is BD's existing practice to arrange joint inspection as the situation requires, and have thus recommended that BD set up clear guidelines on when joint inspection should be conducted. On the practice of issuing advisory letters, the experts have recommended that BD draw up clear guidelines on distinguishing emergency and non-emergency cases as BD will take immediate follow-up action instead of

issuing advisory letters for the former. On the Coroner's recommendation to closely monitor the progress of repair works for building dilapidation cases, the experts agree with the working group's suggestion of requiring officers to specify the re-inspection cycle for dilapidated buildings with statutory orders, and have reminded BD of the need to prepare clear guidelines on the new measure. BD welcomes the experts' comments and recommendations and will revise its manuals and guidelines accordingly.

IMPLEMENTATION OF IMPROVEMENTS

13. To implement the recommendations proposed by the working group and the independent experts relating to BD's enforcement procedures and practices, BD will set up a dedicated task force within a month to consider in a comprehensive manner how the recommendations should be implemented, taking into account the technical, manpower, and financial resource implications. The Development Bureau will provide the needed policy steer and support to BD, for example, in securing additional manpower and financial resources for implementing the recommendations when justified.

ADVICE SOUGHT

14. Members are invited to note the findings and recommendations of the reviews conducted by the BD and the independent experts, as well as BD's plan to set up a dedicated task force to oversee the implementation of the recommendations, and to provide their views on them.

**Development Bureau
Buildings Department
June 2012**



Press Releases

Independent experts appointed to review Buildings Department report on building safety procedures and practices

The Secretary for Development, Mrs Carrie Lam, has appointed two independent experts to review the report prepared by the Buildings Department (BD) on its enforcement procedures and practices in relation to building safety. The report has been prepared in response to recommendations made by the Coroner in August 2011 with respect to the collapse of a building at 45J Ma Tau Wai Road in January 2010.

The BD established a dedicated working group to study the views of the Coroner's Court after receiving its recommendations on August 16, 2011. In addition to considering the recommendations, the working group, which consists of experienced professional staff from the two professional grades of the Department, i.e. building surveyor and structural engineer, has also reviewed the BD's current work procedures and practices on enforcement action relating to building safety. The issues examined include the procedures, methods and devices adopted in building inspection, as well as the factors considered by the Department when issuing statutory orders and notices. The BD has now submitted the report prepared by the working group to the Development Bureau (DEVB).

"We attach great importance to building safety. Immediately following the collapse of a building at 45J Ma Tau Wai Road in January 2010, the BD began territory-wide inspections of some 4,000 buildings aged 50 years or above to ascertain the safety of these buildings, and the inspections were completed in February 2010. This review conducted by BD aims to help the Department further improve the relevant procedures in relation to building safety," a spokesman for the DEVB said.

The Secretary for Development has appointed two independent experts to review the report prepared by the BD. The two experts appointed are Professor Ko Jan-ming, former Vice President of the Hong Kong Polytechnic University (the HKPU), and Mr Daniel Lam Chun, former President of the Hong Kong Institute of Surveyors. Professor Ko is internationally renowned for his research on structural health monitoring systems and is currently the Emeritus Professor (Structural Engineering) at the HKPU. Mr Lam has rich experience in building surveying and is currently a non-executive director of the Urban Renewal Authority.

"With the knowledge and experience of these two experts in the fields of structural engineering and building surveying to help us review the enforcement procedures and practices in relation to building safety, the Government will be able to further enhance the effectiveness of its enforcement work relating to building safety. It is expected that the whole exercise will be completed in around three months' time, after which the DEVB will release the review findings to the public and the relevant committees of the Legislative Council," the spokesman added.

The spokesman emphasised that while the Government will strive to improve measures to enhance building safety, it is the owners' basic responsibility to maintain the safety of their own properties. Hence, the owners should regularly inspect and repair their buildings to ensure the buildings remain in a safe and good condition.

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**Report on the Findings and Recommendations of the
Working Group on Review of Building Safety Enforcement
Procedures and Practices**

Purpose

1. In response to the Coroner's recommendations in respect of the building collapse case at 45J Ma Tau Wai Road, a comprehensive review (the Review) has been carried out on the Buildings Department (BD)'s building safety enforcement procedures and practices including the internal manual and guidelines on inspection of buildings; issue of statutory investigation, repair and demolition orders; and the subsequent monitoring on the progress of follow-up actions. This report provides the scope of the Review, findings and recommendations.

Background

2. A Coroner's Inquest was held from 8 to 16 August 2011 to look into the cause of the death of four persons in the building collapse incident occurred at 45J Ma Tau Wai Road on 29 January 2010. The Coroner delivered his findings on 16 August 2011. In his findings, the Coroner made a number of observations about the incident, amongst which the following are related to the BD:

- (a) for all cases of emergencies related to buildings (for which BD's pledge is to inspect within 3 hours), and non-emergency reports on dilapidation of buildings (for which BD's pledge is to inspect within 10 days), the inspection should be carried out jointly by a Building Surveyor (BS) and a Structural Engineer (SE);
- (b) if the building is considered as dangerous or liable to become dangerous after inspection, BD should issue repair order immediately instead of issuing advisory letter first; and

- (c) BD should closely monitor the progress of rectification works (through regular inspection, say, every two weeks) to ensure compliance of repair orders.

3. BD has given an initial response to the observations of the Coroner at a meeting of the Subcommittee on Building Safety and Related Issues of the LegCo Panel on Development on 26 August 2011 expressing that BD would, based on the Coroner's observations, conduct a comprehensive review on the internal building safety enforcement manual and instructions to see whether they were clear and practical enough for reference to BD's staff and could cater for the needs of present-day circumstances.

4. A working group (the WG) was thus set up for the review. The terms of reference and membership of the WG are at **Appendix I**.

Scope of the Review

5. The WG has held 5 meetings to review the suggestions made by the Coroner and the associated issues related to the inspection of and enforcement actions on defective, dilapidated or dangerous buildings with a view to improving the office practices, guidelines and instructions to staff in these matters.

6. The WG has focused on the whole process of BD's inspection and enforcement actions for building safety at various stages. The following areas were specifically reviewed:

- (a) the conducting of site inspections and the handling of emergency cases;
- (b) the need for requiring a joint inspection team consisting of both BS and SE in response to reports from the public on building defects/dilapidation;
- (c) the referral of cases for cross-discipline consultation between the BS and SE grades and the corresponding demarcation of responsibilities;

- (d) the practice of issuing advisory letters prior to the service of investigation/repair/demolition orders;
- (e) the consideration and criteria to be taken into account for the serving of investigation/repair/demolition orders and the timing imposed for compliance with the orders;
- (f) the follow-up action on complaints received and investigation/repair/demolition orders issued; and
- (g) the administration and monitoring of government consultants and contractors in the carrying out of default works arising from investigation/repair/demolition orders.

7. The WG has also reviewed the need for introducing equipment to supplement the visual inspection of BD's staff in carrying out building safety inspections.

Enforcement of Building Safety under Buildings Ordinance

8. BD provides building safety control services to the public through enforcement of the Buildings Ordinance (BO). The control of existing private buildings is governed by two Existing Buildings Divisions (EBD) and the Mandatory Building Inspection Division (MBID). The territory is sub-divided into 6 geological sections in EBD, each of which is headed by a chief professional officer who is either a Chief Building Surveyor (CBS) or a Chief Structural Engineer (CSE). Each section is supported by a group of professional and technical officers. For sections headed by a CBS, the supporting staff are comprised of BSs and Survey Officers (Building) whereas for sections with a CSE as its head, the supporting staff are mainly SEs and Technical Officers (Structural). The MBID comprises of 2 sections and its main function is to handle buildings selected under the Mandatory Building Inspection Scheme which is expected to be implemented in the second quarter of 2012. The two sections in MBID are headed by a CBS and a CSE respectively.

9. For existing private buildings in Hong Kong, BD provides a 24 hours service and pledges to attend all emergency reports from 1.5 hours to 3 hours, depending on the location of the reported incidents. There are 3 categories of emergency services provided by BD viz those provided within office hours; radio paging system which operates outside office hours and emergency shift system which operates during typhoon, heavy rainstorm or other major emergencies. The front-line inspecting officers attending the cases are in-house staff, who is either a professional officer (a BS or a SE) or a technical officer. The latter one includes Chief Survey Officer (CSO), Chief Technical Officer (CTO), Principal Survey Officer (PSO) or Principal Technical Officer (PTO). Where necessary, the front-line inspecting officers may seek advice from senior professional officers who are on stand-by duty.

10. BD also pledges to attend all non-emergency reports on dilapidation of buildings, signboards and slopes within 10 days. The site inspections are mainly carried out by either the in-house staff as mentioned in paragraph 9 above or the outsourcing consultant appointed by BD.

11. It is the owner's responsibility to upkeep the safety of their buildings and, for this purpose, to carry out regular inspections and timely maintenance and repair of their buildings. The objective of the BD's inspections for the reported cases as mentioned in paragraphs 9 and 10 above is mainly to assess the condition of the building and degree or seriousness of defects/dilapidation with a view to determining whether emergency works are required to be carried out and/or investigation, repair or demolition order is to be issued.

The Review

12. The Review has made reference to the following in-house manuals and instructions on building safety enforcement procedures and practices, which are available for reference by the staff of BD¹:

(a) Buildings Department Emergency Handbook	
Part A Sections 1 to 6	

¹ Note added by the Development Bureau: the internal documents considered by the WG have been provided to the independent experts separately.

(b) Existing Building (EB) Division Manual Part I, Section 3	
Instruction No.5	<ul style="list-style-type: none"> ● Cross Discipline consultation between BS and SE
(c) EB Division Manual Part III, Section 3	
(i) Instruction No .1	<ul style="list-style-type: none"> ● Inspection of Building Defects and Issue of Orders for Repair or Demolition under s26 of the Buildings Ordinance (BO) ● Manual for Inspection, Assessment and Repair of Buildings
(ii) Instruction No.2	<ul style="list-style-type: none"> ● Emergency Works under s26(4), 27(6)(b) and 28(8) of the BO and s105 of the Public Health & Municipal Services Ordinance
(iii) Instruction No.6	<ul style="list-style-type: none"> ● Maintenance Responsibility of External Walls issuing Advisory Letters to Owners and Occupiers about Building Defects
(d) EB Division Manual Part III, Section 4	
Instruction No.1	<ul style="list-style-type: none"> ● Closure of Dangerous Buildings
(e) EB Division Manual Part III, Section 5	
(i) Instruction No.1	<ul style="list-style-type: none"> ● Investigation and Repair Orders
(ii) Instruction No.3	<ul style="list-style-type: none"> ● Investigation of Structural Defects in Reinforced Concrete Buildings
(f) EB Division Manual Part IV, Section 1	
Instruction No.19	<ul style="list-style-type: none"> ● Default Works Term Consultancy
(g) EB Division Manual Part IV, Section 3	
(i) Instruction No.1	<ul style="list-style-type: none"> ● Inspection of Works

(ii) Instruction No.5	● Demolition of Dangerous Buildings
(h) Contract Management Unit (CMU) Manual	
(i) Practice Note No.5.02	● Management of Consultancy Agreement
(ii) Practice Note No.5.04	● Administration of BD Term Consultancy

Findings and Recommendations

13. For ease of reference, the findings of the Review and the recommendations are summarized in **Appendix II**. The salient points of the recommendations are abstracted in the following paragraphs for easy reference.

(I) The conducting of site inspections and the handling of emergency cases

(a) The handling of emergency cases by staff of the BD

The current emergency handbook provides guidelines and instructions to the staff of BD for handling emergency cases. The WG is of the view that the current guidelines and procedures in handling the emergency cases are adequate for the purpose.

(b) The conducting of site inspections by staff of BD

- (i) The WG is of the view that the existing office manual, instructions and guidelines have provided sufficient administrative guidance to staff for conducting site inspection.
- (ii) It is recommended to provide a standard inspection tool kit to assist staff in carrying out inspection. The tool kit should include torch, spirit level, crack meter, camera, binoculars,

small size hammer, measuring tape and electronic distance measuring tool.

- (iii) It is recommended to establish a centralized body in BD which is responsible of recording the inventory, upkeeping, procuring and replacing the equipment.

(c) Technical assessment and reporting

- (i) It is recommended to provide guidelines for circumstances which require the opening up of certain concealed critical structural elements, decorative materials and further inspection to individual units in order to assess the overall structural integrity of the defective buildings.
- (ii) It is recommended to review and standardize various formats of inspection report, incorporating the items for observation on the critical structural elements and non-structural elements and time spent on the inspection.
- (iii) It is recommended to supplement the guidelines with pre-inspection desk study unless the case is obviously minor in nature. The desk study should include examination on the structural form of the building, types and details of critical elements, material of construction and history of building modifications.
- (iv) It is recommended to introduce a new category “V – Severe” in Tables 3 and 4 of the “Manual for Inspection, Assessment and Repair of Buildings” which reflects the serious dilapidated building condition, for the purpose of considering emergency works by the Buildings Department’s Contractor (BDC), application for closure order and service of demolition order as the circumstances required.
- (v) It is recommended to carry out procedural audit of the inspection reports by the Internal Audit Unit of BD.

(vi) It is recommended to review and update the “Manual for Inspection, Assessment and Repair of Buildings” taken into account the latest re-organization of BD and the implementation of various recommendations in this study.

(II) The need for requiring a joint inspection team consisting of both BS and SE in response to reports from the public on building defect / dilapidation

- (a) The WG has conducted a review on the number and nature of reports from the public attended to by BD regarding building defects/dilapidation from 2008 to 2010. In 2008, 2009 and 2010, there are 11,337, 11,389 and 14,111 reports respectively. The reports are of various natures, ranging from the concern on structural elements (e.g. structural defects, settlement) to non-structural elements (e.g. de-bonding of external wall finishes, loose rendering, defective drainage and dangerous advertising signs) which also pose risk to public safety.
- (b) The WG has also noted that the number of emergency cases is 1,222, 971 and 1,033 in 2008, 2009 and 2010 respectively. Under the current system, the inspecting officers, apart from BSs and SEs, also include technical grade officers, namely CSOs, CTOs, PSOs and PTOs. Every inspecting officer should carry out inspection independently and be personally responsible for their duties. The WG is of the view that all of them are competent staff to handle the reports from the public on building defects/dilapidation. In case the staff requires second opinion or in-depth structural or planning (such as means of escape) advices, there is an established mechanism in BD to provide such advices timely. Such mechanism has proved to be a practical, feasible and effective system.
- (c) The WG has thoroughly reviewed the current system, nature of reports, workload and resources. The WG suggests to maintain the established mechanism. The WG considers that a joint

inspection team composing a BS and a SE in every case is not necessary from the professional competence and ability point of view. Such an arrangement is not an efficient and effective way in the use of staff resources. It may also inadvertently give rise to dereliction of duties of the inspecting officer.

(III) The referral of cases for cross-discipline consultation between the BS and SE grades and the corresponding demarcation of responsibilities

(a) SE consultancy

- (i) The WG considers the “Severity Indices” and “Classification of overall dilapidated condition of the building” as delineated in the “Manual for Inspection, Assessment and Repair of Buildings” serve good indicators to all inspecting officers in determining when an in-depth structural analysis is necessary.
- (ii) It is recommended to correlate the above two indicators with structural consultation. If the assessment revealed the overall dilapidated condition of the building is classified as “Severity Index 4” or “Category IV”, it would be a triggering point for conducting an in-depth structural analysis and seeking structural advice for such purpose.

(b) BS Consultancy

The WG considers that the existing BS consultation mechanism on complicated fire safety or planning related building safety matters is adequate for the present assessment of “building dilapidation”.

(IV) The practice of issuing advisory letters prior to service of investigation/repair/demolition orders

- (a) The WG is of the view that the purpose of an advisory letter is to notify owners of the presence of building defects in the buildings so that they could arrange for necessary repairs at the earliest opportunity, and be aware of the condition of the building at an earlier stage. The issue of advisory letters is not on the critical path of the progress of repair and should not prejudice the programme of repair in any case.
- (b) It is recommended that the practice to issue advisory letter to the owners should be maintained.

(V) The consideration to be taken into account and timing for serving of investigation/repair/demolition orders

- (a) The WG emphasizes that professional judgment should always be exercised in serving investigation, repair or demolition orders. The current manual has provided criteria for consideration of serving investigation and repair orders. Nevertheless, there is room for improvement in providing guidelines for the issuing of demolition orders vis-a-vis repair orders.
- (b) It is recommended that statutory orders should normally be served within one month when the ownership details are made available from the Land Registry. For non-emergency cases, the order should be issued within 3 months after the endorsement of the recommendation by Senior Professional Officer (SPO).
- (c) It is also recommended to introduce a new category “V – Severe” in Table 5 of the “Manual for Inspection, Assessment and Repair of Buildings” which reflects the serious dilapidated condition of a building. Category V is for the purpose of considering urgent actions such as emergency works by BDC, application for closure orders and service of demolition orders

as the circumstances required.

(VI) The follow-up action on reports received from the public and investigation/repair/demolition orders issued

(a) Monitoring of follow-up action on reports received from the public

- (i) The WG considers BD's pledge for attending inspection arising from reports on defective/dangerous buildings from the public (i.e. 3 hours for emergency case, 10 days for non-emergency cases) is sufficiently clear and well monitored.
- (ii) It is recommended to provide guidelines for the timeline of inspection report submission. The WG considers that the submission of inspection report within a month after inspection is reasonable. The report should also include recommendation of re-inspection cycle.
- (iii) It is recommended that monitoring of the re-inspection cycle should commence after the issuance of order. The SPO should monitor and ensure the endorsed re-inspection cycle is suitably followed.

(b) Monitoring of Progress of Repair Works

- (i) It is recommended to monitor all outstanding orders at the Sectional Project Co-ordination Meeting chaired by the Sectional Chief Professional Officer (CPO).
- (ii) It is recommended to continue the monitoring of long outstanding orders at the Progress Monitoring Committee to oversee enforcement works by EBD chaired by the Director of Buildings.

(VII)The administration and monitoring of government consultants and contractors in the carrying out of works arising from investigation/repair/demolition orders in default of owners (Default Works)

(a) Management of Default Works Consultant (DWC)

The WG is of the view that the existing guidelines in this respect are sufficient.

(b) Management of Buildings Department's Contractor (BDC)

It is recommended to enhance the monitoring of the performance of BDC and site works progress via Sectional Project Co-ordination Meetings chaired by Sectional CPO.

Concluding Remarks

14. This report has presented a review on BD's current building safety enforcement procedures and practices in respect of defective/dilapidated/dangerous buildings. Seven selected issues covering BD's established practice have been reviewed to ascertain the adequacy of office guidelines and instructions in handling building safety matters.

15. The WG agrees that BD's existing office guidelines and instructions with respect to building safety inspections and subsequent enforcement actions are basically adequate. Nonetheless, the WG identifies certain aspects relating to building safety inspections and reporting, the issuing of statutory orders and subsequent monitoring that could be enhanced in order to improve the efficiency and effectiveness of the overall workflow. Based on the findings, the WG recommends to revise and update the relevant manuals to incorporate the suggested improvements.

16. The Coroner's recommendations as mentioned in paragraph 2(a) to (c) above are also critically reviewed and the WG reports as follows:

- (a) A joint inspection team of a BS and a SE in every case of a certain category of dilapidated/dangerous buildings may not be efficient and effective. It may give rise to dereliction of duties of the inspecting officer. The WG has thoroughly discussed the current system, nature of cases, workload and resources and concluded that the inspection by two officers of different disciplines in every case is not necessary and not feasible in terms of resources and practicality. However, the WG is of the view that BD's established cross-discipline consultation mechanism is pragmatic and effective for staff who needs to seek immediate advices on structural and planning related safety matters. Based on the review, the WG also recommends amendments of the relevant manuals to incorporate indicators coming from the qualitative assessment which would alert staff to initiate cross-discipline consultation at the right time.
- (b) The WG is of the view that the purpose of an advisory letter is to notify owners of the presence of building defects at the earliest opportunity. The issue of advisory letters is not on the critical path of the progress of repair and should not prejudice the repair programme. The WG recommends that the practice to issue advisory letter to owners before the statutory order should be maintained.
- (c) The WG concurs that the monitoring on the progress of rectification works to ensure compliance of repair orders is necessary and of paramount importance. However, the WG opines that the re-inspection cycle should be devised according to the building condition as assessed on a case by case basis. To this end, the WG recommends the Sectional CPO, who has the overall responsibility to monitor all outstanding investigation/repair/demolition orders, should regularly chair a Sectional Project Coordination Meeting for the purpose.

17. The WG has discussed the purpose of inspection by BD staff with reference to the objectives of the BO and the role of BD. The WG concurs that the role of BD is to monitor the owners in discharging their responsibility for upkeeping the safety of their properties with a view to safeguarding the overall building safety of private buildings across the

territory and, for this purpose, to identify dilapidated / dangerous buildings for the serving of statutory orders and monitor the progress of compliance thereafter, to enforce the owners to carry out the necessary investigation, repair or demolition of their buildings.

18. The WG concurs that the building owners have the basic responsibility to upkeep the safety of their buildings and for this purpose, to carry out regular inspection and timely maintenance and repair of their buildings. A building usually involves significant number of structural and non-structural elements. It is illogical in shedding the duty of investigation of dilapidated buildings to the government at the expense of the public purse. The detailed investigation and in-depth diagnosis of building defects/dilapidation should not be a norm in the building inspection by the BD staff for the purpose as described in paragraph 17 above.

Way Forward

19. Subject to the endorsement of the recommendations by the Senior Management, revision to the relevant manuals and instructions will proceed accordingly.

**Working Group on Review of Building Safety Enforcement Procedures
and Practices
Buildings Department
December 2011**

**Working Group on Review of Building Safety Enforcement
Procedures and Practices**

Terms of Reference

The Working Group shall

(A) consider the following Coroner’s recommendations:

- (a) for cases of emergencies related to buildings, and non-emergency reports on dilapidations of buildings, the inspection should be carried out jointly by a Building Surveyor (BS) and a Structural Engineer (SE);
- (b) abandon the issue of Advisory Letter to the owner; and
- (c) regular monitoring after the issue of repair orders.

(B) conduct a comprehensive review on the building safety enforcement procedure and practices including Building Department’s manual and guidelines on inspection of buildings and issue of investigation/ repair and demolition orders.

(C) make recommendations to the Director of Buildings upon the completion and findings of the review made in (A) and (B) above.

Membership¹

Co-chairmen	Mr. LEE Yun-choi	CSE/C	Buildings Department
	Mr. AU Wing-hung	CBS/D	Buildings Department
Members	Mr. TANG Kwok-kuen	SSE/C1	Buildings Department
	Ms. TSANG Po-king	SBS/D2	Buildings Department
	Mr. Edwin HONG	BS/D2-2	Buildings Department
Secretary	Mr. LUK Man-kit	SE/C5-1	Buildings Department

¹ Note added by the Development Bureau: “CSE”, “CBS”, “SSE” and “SBS” are acronyms of “Chief Structural Engineer”, “Chief Building Surveyor”, “Senior Structural Engineer” and “Senior Building Surveyor” respectively. The letters following the rankings denote the geographical sections that the officers are from.

**Summary of Findings and Recommendations of
the Working Group (WG) on Review of Building Safety Enforcement Procedures and Practices**

(I) The Conducting of Site Inspections and the Handling of Emergency Cases

	Issues of Concern	WG's Deliberations	WG's Recommendations
(A) The Handling of Emergency Cases by Staff of BD			
(a) Buildings Department Emergency Handbook Part A, Section 4	(i) Actions to be taken during emergency	(i) The instruction provides guidance to staff to handle emergency cases. It provides the objectives to handle emergency cases, responsibilities of inspecting officer on site, and follow-up actions to be taken. The WG is of the view that the current procedures are adequate and suitable for the purpose.	

	Issues of Concern	WG's Deliberations	WG's Recommendations
<p>(b) EBD Manual Part III Section 3 Instruction No. 2</p> <p>Emergency works under s26(4), 27(6)(b) and 28(8) of the BO and s105 of the Public Health & Municipal Services Ordinance</p>		<p>(ii) The instruction deals with administrative procedures for emergency cases in relation to works on site, coordination with Buildings Department's Contractor (BDC), cost recovery actions etc. The WG is of the view that the current procedures are adequate and suitable for the purpose.</p>	
<p>(B) The Conducting of Site Inspections by Staff of BD</p>			
<p>(a) Manual for Inspection, Assessment and Repair of Buildings</p>	<p>(i) Para 2.3 - Methodology of Inspection.</p>	<p>(i) The manual provides guidelines to the inspecting officers on what and how to inspect dangerous / dilapidated reinforced concrete buildings and pre-war buildings with timber construction.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>(ii) Para 2.4 - Scope of Inspection.</p>	<p>(ii) In order to assess the overall structural integrity of the defective buildings, the WG considers that guidelines should be given for circumstances which require the open up of certain concealed critical structural elements, decorative materials and further inspection to individual units especially those cases for which the critical structural elements are considered as common part of the buildings.</p> <p>(iii) A stock taking exercise of current inspection equipment in different sections of Existing Buildings Division (EBD) has been conducted. It was found that the equipment available for EBD's staff are cameras, measuring tapes, binoculars and torches only. In case the staff require the equipment such as cover meters, moisture meters</p>	<p>(i) It is recommended to provide guidelines for circumstances which require the open up of certain concealed critical structural elements, decorative materials and further inspection to individual units in order to assess the overall structural integrity of the defective buildings.</p> <p>(ii) It is recommended to provide a standard inspection tool kit to assist staff in carrying out the inspection.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>etc, the staff need to borrow such equipment from other sections. To improve the current arrangement, the WG considers it would be helpful to provide a standard inspection tool kit for EBD's staff to carry out inspection. It is suggested that the tool kit should consist of handy tools such as:</p> <ul style="list-style-type: none"> - Torch - Spirit level (to measure verticality of a structural element) - Crack meter (to measure the size of cracks) - Camera - Binoculars - Small size hammer (to test the extent of concrete spalling in reachable areas) - Measuring tape/electronic distance measuring tool 	

	Issues of Concern	WG's Deliberations	WG's Recommendations
<p>(b) EBD Manual Part III Section 5 Instruction No. 1</p> <p>Investigation and Repair Orders</p>	<p>(i) Para. 3 - scope of inspection for a full survey of the building</p>	<p>(i) The instruction provides guidelines for the issue of investigation / drainage repair orders with respect to dilapidated building (s26A Order) and dilapidated / defective drainage works (s28 Order).</p> <p>(ii) The scope of inspection covers all external and internal finishes, structural members, non-structural members, water tanks, drainage system and all attachments together with appendages. The scope of inspection is comprehensive and it provides guidance to staff when there is a need to carry out a full survey. It also tallies with the “Manual for Inspection, Assessment and Repair of Buildings”.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>(iii) It is noted that BD has no centralized body to record the inventory, upkeep, procure and replace the equipment.</p> <p>(iv) The WG concurs that building owners should have the ultimate responsibility to carry out detailed investigation to their buildings. Nevertheless, for the purpose of updating the new technological level in the detailed investigation and diagnosis of building defects / dilapidation and the staff getting ready for the investigation of special cases, BD should explore such new technology / equipment and consider the procurement if necessary.</p>	<p>(i) It is recommended to establish a centralized body in BD which is responsible for recording the inventory upkeeping, procuring and replacing the equipment.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
<p>(c) EBD Manual Part III Section 5 Instruction No. 3</p> <p>Investigation of Structural Defects in Reinforced Concrete Buildings</p>	<p>(i) Investigation of structural defects in reinforced concrete buildings</p>	<p>(i) The instruction provides guidance to the staff on in-depth investigation of structural defects in reinforced concrete buildings. The investigation should be endorsed by an Assistant Director/EBD (AD/EB) under special circumstances, such as death inquest, collection of evidence for the consideration of prosecution or disciplinary actions. The instruction provides detailed study by making use of coring, chemical analysis, chasing, tensile tests, etc. The WG is of the view that the current procedures are adequate for the purpose.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
(C) Assessment and Reporting			
(a) Manual for Inspection, Assessment and Repair of Buildings	<p>(i) Para 2.5</p> <ul style="list-style-type: none"> - Classification of Building Defects. ◆ Table 1- Severity indices for internal structural elements. ◆ Table 2- Severity indices for exterior of the building. 	<p>(i) Tables 1 and 2 serve to indicate the extent and degree of seriousness of building defects in a quantitative basis which facilitate the qualitative assessment of the overall dilapidated condition of the buildings.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>(ii) Para 2.6</p> <ul style="list-style-type: none"> - Classification of Overall Building Condition ◆ Table 3- Different classifications of overall dilapidated condition of the exterior of the building ◆ Table 4- Different classifications of overall dilapidated condition of interior common areas & internal units of the building 	<p>(ii) Tables 3 and 4 give a global perspective of the dilapidated condition of the building.</p> <p>(iii) A qualitative assessment approach is adopted for the classification of the overall building condition based on professional judgment on the quantities, types, locations, extent, distribution and risk of defects in individual structural elements.</p> <p>(iv) Four categories of overall dilapidated building condition are adopted viz. Category I - acceptable, Category II - moderate, Category III - varied, Category IV - poor.</p> <p>(v) The WG recommends to introduce one more category, say "Category V - Severe" in Table 3 and 4 which reflects the serious dilapidated building condition. Category V is for</p>	<p>(i) It is recommended to introduce one more category "Category V – Severe" in Table 3 and 4 which reflects the serious dilapidated building condition, for the purpose</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>(iii)Para 2.8</p> <ul style="list-style-type: none"> - Reporting Format of Inspection <ul style="list-style-type: none"> ◆ Presentation of inspection findings ◆ Qualitative assessment of the defects/ dilapidation ◆ Conclusion and recommendations on follow-up 	<p>the purpose of considering urgent actions such as emergency works by BDC, service of closure order and/or demolition order as the circumstances required.</p> <p>(vi) The WG opines that initial desk study before the inspection is necessary unless the case is obviously minor in nature.</p> <p>(vii)The desk study should include examination on the structural forms of building, types and details of critical elements, material of construction and history of building modifications.</p> <p>(viii)The Manual was issued in February 2000. The WG considers that the Manual requires updating and review, taking into account the latest re-organization of BD in April 2011</p>	<p>of considering emergency works by BDC, service of closure order and/or demolition order as the circumstances required.</p> <p>(ii) It is recommended to supplement the guidelines with pre-inspection desk study and standard inspection report format. The inspection report should include factual information such as dimensions, nature and pattern of cracks, extent of concrete spalling and condition of exposed steel reinforcement.</p> <p>(iii) To review and update the Manual for Inspection, Assessment and Repair of Buildings.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
	actions	and the implementation of various recommendations in this study.	
<p>(b) EBD Manual Part III Section 3 Instruction No. 1</p> <p>Inspection of Building Defects and Issue of Orders for Repair or Demolition under s.26</p>	<p>(i) Appendix 1(a) and 1(b) are the format of inspection report for incidents involving fallen aluminum windows and the full survey of the building respectively.</p>	<p>(i) Appendix 1(a) and 1(b) of the instruction are the formats of inspection report for incidents involving fallen aluminum windows and the full survey of the building respectively. The “Manual for Inspection, Assessment and Repair of Buildings” also contains various report formats. The WG notes that the inspecting officers and consultants use different inspection reporting format. The WG considers a unified reporting format should be used.</p> <p>(ii) Members consider that staff should adopt the standard format of inspection reports, at least for routine cases and thus quality of inspection across different teams</p>	<p>(i) It is recommended to review and standardize various format of inspection reports, incorporating the items for the observation on the critical structural elements and non-structural elements, including the time spent on the inspection and so on.</p> <p>(ii) It is recommended to carry out procedural audit of the inspection report by the Internal Audit Unit of BD.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>can be maintained. To monitor the quality and ensure consistency, the Internal Audit Unit may select a number of cases every year for the purpose of procedural audit while the technical audit is the duty of senior professional officers (SPOs) and chief professional officers (CPOs) in the respective section.</p> <p>(iii) The WG notes that the time spent on inspection is not specified in the present inspection reports and suggests to provide such in the inspection reports for better understanding of the scope and extent of inspection carried out. The WG considers that sufficient time should be provided for every inspection.</p>	<p>(iii) It is recommended to record the time spent on the inspection, in the inspection report.</p>

(II) The need for requiring a joint inspection team consisting of both BS and SE in response to reports from the public on building defects/dilapidation

	Issues of Concern	WG's Deliberations	WG's Recommendations
(A) Nil	(i) Joint inspection team consisting of both building surveyor (BS) and structural engineer (SE) in response to reports from the public on building defects/dilapidation	<p>(i) <u>Performance pledge</u> The WG has studied the performance pledge of the BD. It is noted that BD provides a 24-hour service and pledges to attend all emergency reports within 1.5 hours to 3 hours, depending on the location. For non-emergency reports on dilapidation of buildings, signboards and slopes, BD pledges to carry out site inspection within 10 calendar days.</p> <p>(ii) <u>Nature of Reports</u> There are various kinds of reports from the public on building defects/dilapidation. The reports can be considered under the following categories for the purpose of this Review.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>Category I :</p> <p>Serious defects in structural members and/or building movement or vibration or ground subsidence giving rise to concern on structural safety.</p> <p>- Category II :</p> <p>Serious defects in non-structural elements (e.g. loose concrete, loose plastering, debonding tiles, defective fins, defective window sills or window elements etc) giving rise to concern on falling objects endangering the public.</p> <p>- Category III:</p> <p>Dangerous appendages (e.g. A/C frames, advertising signs, scaffolding/hoarding) posing a risk of collapse or concern on</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>risk of falling.</p> <ul style="list-style-type: none"> - Category IV: Other types of building defects/dilapidations that are less serious in extent or nature but nevertheless are of concern to the owners/occupants who report to BD, e.g. leaking drains. <p>(iii) <u>Statistics of reports</u> According to the Controlling Officer's Report, the number of reports from the public attended to by BD regarding building defects/dilapidation from 2008 to 2010 are 11,337, 11,389 and 14,111 respectively.</p> <p>For emergency cases, the WG noted that BD had received 1,222, 971, and 1,033 reports in 2008, 2009 and 2010 respectively.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>(iv) <u>Inspecting officers</u></p> <p>Under the current system, the inspecting officers do not only include BSs and SEs but also technical grade officers, namely Chief Survey Officers (CSOs), Principal Survey Officers (PSOs), Chief Technical Officers (CTOs) and Principal Technical Officers (PTOs). Every inspecting officer should carry out inspection independently and be fully responsible for their duties. The WG considers that they are also competent staff to handle the reports from the public on building defects/dilapidation. In case the staff requires second opinion or advice on in-depth structural or fire safety / planning related safety matters (such as means of escape), there is an established mechanism in BD to provide such advices timely. Such</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>mechanism has proved to be a practical, feasible and effective system in response to reports from the public on building defects/dilapidation.</p> <p>(v)The WG suggests to adopt the established mechanism and considers a joint inspection team by BS and SE for every case is not necessary or practicable. Such arrangement is not an efficient and effective way in the use of staff resources. It also inadvertently gives rise to dereliction of duties of the inspecting officers.</p> <p>(vi) The WG has thoroughly discussed the current system, nature of reports from the public, workload and resources. It is concluded that the inspection by two professional officers in every case is not</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>necessary and is not feasible in terms of resources and practical situation.</p>	

(III) The referral of cases for cross-discipline consultation between the BS and SE grades and the corresponding demarcation of responsibilities

	Issues of Concern	WG's Deliberations	WG's Recommendations
(A) SE Consultancy			
(a) EB Division Manual Part I, Section 3 Instruction No. 5 Cross Discipline Consultation between BS and SE	(i) Task (iv) Appendix A ¹ - Complaint cases & LSO on repair and investigation of dilapidated buildings - To make structural assessment/comment on structural stability and/or recommendation for enforcement action - To seek advice on	(i) Timely SE involvement in the course of building safety inspection is essential particularly when the building dilapidation reaches such an extent that in-depth structural assessment becomes crucial for determining whether the building is so dangerous as to require emergency shoring and/or demolition. (ii) Timely BS involvement to advise on complicated fire safety or planning matter is equally important as	

¹ Note by the Development Bureau: The main text of the manual on cross discipline consultation sets out the background for implementing the consultation mechanism, as well as certain procedural issues that BD staff are required to pay attention to. A list of items (referred to as “tasks” in the manual) that are recommended to go through the cross discipline consultation mechanism is set out at Appendix A together with the detailed descriptions, common examples and document number of the relevant manuals for each of the items.

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>complicated fire safety or planning matters</p>	<p>exemplified in the recent tragic cases involving sub-division of flats adversely affecting the means of escape.</p> <p>(iii) There are general guidelines for cross-discipline consultation between BS and SE when expert advice of another discipline is sought on a genuine need basis. The WG considers the guidelines should be elaborated so that cross-discipline consultation can be initiated at the right time in the course of building safety inspection.</p> <p>(iv) The WG suggests reference should be made to the Manual for Inspection, Assessment and Repair of Buildings of which specific guidelines, in quantitative and qualitative sense, are given for assessment to the building</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
		condition. It is further elaborated in Item (b) below.	
(b) Manual for Inspection, Assessment and Repair of Buildings	<p>(i) Para 2.5, 2.6 & 2.7</p> <p>- Table 1 & 2: Classification of building defects in terms of "Severity Indices" for internal structural elements and exterior of the building</p> <p>- Table 3: Classification of overall dilapidated condition of the exterior of the building.</p>	<p>(i) Technical guidelines are given to the inspecting officers for what and how to inspect dangerous or dilapidated buildings.</p> <p>(ii) The Manual has established systematic approach in classifying the extent and seriousness of building defects, either for internal structural elements or the building as a whole, at the time of inspection.</p> <p>(iii) Collectively, two indicators are used, viz. the "Severity Indices" and "Classification of overall dilapidated condition of the building".</p> <p>(iv) In general, Severity Indices 1 to 3,</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>- Table 4: Classification of overall dilapidated condition of interior common areas & internal units of the building.</p>	<p>Category I to III of the classification of overall dilapidated condition are referred to as less significant defects / dilapidation. When the two indicators reach 4 and Category IV, it indicates significant building defects / dilapidation.</p> <p>(v) The WG considers these indicators serve good references to all inspecting officers in determining when an in-depth structural analysis/assessment is necessary for determining whether the building is so dangerous as to require emergency shoring and/or demolition. Guidelines should be given to correlate these indicators with the need for such in-depth structural analysis/assessment and structural consultation.</p>	<p>(i) If assessment coming from the initial inspection revealed the "Severity Index 4" or "Category IV" of the overall dilapidated condition of the building, it should be a reasonable triggering point to conduct an in-depth structural analysis/assessment and for BS to seek SE consultation.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
(B) BS Consultancy			
<p>(a) EB Division Manual Part I, Section 3 Instruction No. 5</p> <p>Cross Discipline Consultation between BS and SE</p>	<p>(i) Task (i) Appendix A Complaint cases & LSO on UBW.</p> <ul style="list-style-type: none"> - To make assessment of UBW or recommendation for enforcement action <p>(ii) Task (ii) Appendix A</p> <ul style="list-style-type: none"> - Vetting AP/RSE/consultant's submission relating to advisory letters, statutory orders, notices, MWCS, MBIS, MWIS, etc 	<p>(i) The WG has reviewed the manual, which was issued in September 2011. It covers various scenarios in daily works which require BS consultancy input, such as fire compartmentation, exit route and other planning issues.</p> <p>(ii) The WG considers that the existing BS consultation mechanism is adequate for the purpose of this Review with respect to 'building dilapidation'.</p>	<p>(i) Considering the recent tragic cases involving sub-divided flats obstructing the means of escape of buildings, the WG suggests that more guidelines be given to the inspecting officers in carrying out the inspections. Where necessary, timely advice from the BS under the established consultation mechanism should be made.</p>

(IV) The practice of issuing advisory letters prior to service of investigation/repair/demolition orders

	Issues of Concern	WG’s Deliberations	WG’s Recommendations
<p>(a) EBD Manual Part III, Section 3 Instruction No. 6</p> <p>Maintenance Responsibility of External Walls Issuing Advisory Letters to Owners and Occupiers about Building Defects</p>	<p>(i) One of the Coroner’s recommendations is that if the building is considered as dangerous or liable to become dangerous after inspection, BD should issue repair order immediately instead of issuing advisory letter first.</p>	<p>(i) The purpose of an advisory letter is to notify owners of the presence of building defects so that they could arrange for necessary repairs at the earliest opportunity, and also aware of the condition of the building at an early stage.</p> <p>(ii) The WG notes that it takes time to acquire ownership record from Land Registry (LR) to ascertain the maintenance responsibility of the defects and to prepare the repair order (generally 1-3 months depending on the complexity of the ownership). It is essential to ascertain that the correct person to be served with the statutory order, especially when part of the building not being within individual private premises, like the external walls,</p>	<p>(i) The practice to issue advisory letter to the owners should be retained.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>may be held by an individual owner instead of co-owners or IO of the building.</p> <p>(iii) The advisory letters are invariably addressed to owners/occupiers of the building without their names mentioned. Thus, issuing of advisory letters would not postpone the issuing of repair orders. In brief, issuing of repair orders and advisory letters are independent events and serving different purposes. The issue of advisory letters is not on the critical path in issuing the statutory repair orders.</p>	

(V) The consideration to be taken into account and timing for serving of investigation / repair / demolition orders

	Issues of Concern	WG's Deliberations	WG's Recommendations
<p>(a) EB Division Manual Part III, Section 3 Instruction No. 1</p> <p>Inspection of Building Defects and Issue of Orders for Repair or Demolition under s26.</p>	<p>(i) Para 4 to 8 - Building Repair Orders or Demolition Orders.</p> <p>(ii) Para 38, 45 to 48 - Demolition of dangerous buildings.</p>	<p>(i) The guidelines cover the administrative procedures of issuing repair orders and demolition orders.</p> <p>(ii) The current Instruction does not define in what circumstances a demolition order should be served. It is suggested that when a significant portion of the building elements such as roof, floor, slab, wall or column has collapsed or seriously dilapidated in such an extent that the structural integrity of the building has been impaired such that it is posing a threat to the occupants or the public, the application for a closure order and serving of a demolition order should be seriously considered.</p>	<p>(i) It is recommended to provide guidelines in considering the issuing of demolition orders.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>(iii) Para 15 to 21 - Service of Orders.</p>	<p>(iii) The guidelines cover general procedures for serving repair / demolition orders. However, the WG considers it necessary to specify the timeline for the issue of order.</p> <p>(iv) To avoid unnecessary delay of serving the order, the WG considers that the repair order should be served within one month when the ownership details are available from the LR. For non-emergency cases, it is expected that the time for the issuance of orders should not be longer than 3 months after endorsement of the recommendation by SPO.</p> <p>(v) The WG emphasizes that professional judgment should always be exercised in determining when to issue the repair order.</p>	<p>(ii) It is suggested that the repair order should be served within one month when the ownership details are available from the LR.</p> <p>(iii) For non-emergency cases, the order should be issued within 3 months after endorsement of the recommendation by SPO.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>(iv) Para 14 - Compliance Period</p>	<p>Shorter time for issuing the order may be necessary when circumstances required.</p> <p>(vi) The WG considers a maximum of 6 months compliance period is reasonable under normal circumstances to allow sufficient time for the owners to co-ordinate amongst themselves and to engage an authorized person (AP), a registered structural engineer (RSE) and a registered contractor (RC) to complete the required rectification works. However, as a normal practice, staff should exercise the judgment according to the actual circumstances of individual case. For those cases with higher risks, a shorter compliance period, say 2 to 3 months should be considered, depending on the risk level and complexity of the case concerned.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
		(vii) The WG agrees that compliance period longer than 6 months, should be endorsed by the Section Head.	
(b) Manual for Inspection, Assessment and Repair of Buildings	<p>(i) Para 2.7 - Follow-up actions subsequent to inspection of buildings</p> <p>(ii) Table 5 - Follow-up actions corresponding to different classifications of building condition</p>	<p>(i) Technical criteria are given to determine the appropriate type of investigation or repair orders according to the findings of inspection or structural assessment.</p> <p>(ii) Table 5 provides guidelines for follow-up actions, including the service of order, based on different classifications. In normal circumstances, a repair order or investigation order will be issued if the classification of building condition is Category III or higher.</p> <p>(iii) WG recommends to introduce one more category, say "Category V - Severe" in Table 5 which reflects</p>	<p>(i) To introduce one more category i.e. "Category V – Severe" in Table 5 which reflects the serious dilapidated</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>(iii) Para 3 - Investigation and Repair Orders Under B.O. s26, s26A and s28</p>	<p>the serious dilapidated condition of the building. Category V is for the purpose of considering urgent actions such as emergency works by BDC, service of closure order and/or demolition order as the circumstances required.</p> <p>(iv) The criteria for serving s26, s26A and s28 orders were provided in the Manual. WG considers the criteria good reference for determining the types of orders to be served.</p>	<p>condition of the building. Category V is for the purpose of considering urgent actions such as emergency works by BDC, service of closure order and/or demolition order as the circumstances required.</p>
<p>(c) EB Division Manual Part III, Section 5 Instruction No. 1</p> <p>Investigation and repair Orders</p>	<p>(i) Para 2 - Definition of s26A and s28(3) orders</p>	<p>(i) The Instruction provides guidelines for the investigation orders with respect to dilapidated building (s26A Order) and dilapidated / defective drainage works (s28 order).</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>(ii) Para 3 - Scope of inspection</p> <p>(iii) Para 4 to 5 - Compliance period</p>	<p>(ii) For the sake of consistency, the WG considers guidelines with respect to the scope of inspection should refer to para 2.4 of the “Manual for Inspection, Assessment and Repair of Building”.</p> <p>(iii) The WG considers a maximum of 6 months compliance period is reasonable under normal circumstances to allow sufficient time for owners to co-ordinate amongst themselves and to engage an AP/RSE/RC to complete the required investigation / rectification works.</p> <p>(iv) The WG agrees compliance period longer than 6 months should be agreed by the Section Head at CBS/CSE level.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
	(iv) Para 6 - Service of investigation and repair orders	(v) Again, WG suggests timeline should be given for the issuance of investigation orders . It is recommended that investigation order should be served within one month when the ownership details are available from the LR. It is expected that the aggregated time for the issuance of orders should not be longer than 3 months after endorsement of the recommendation by SPO.	(i) The investigation order should be served within one month when the ownership details are available from the LR and , (ii) The order should be issued within 3 months after endorsement of the recommendation by SPO.
(d) EB Division Manual Part III, Section 4 Instruction No. 1 Closure of Dangerous Buildings	(i) Para 2 to 7 - Guidelines to determine closure of dangerous buildings	(i) Guidelines are given in situation when the closure of dangerous buildings is required. CPO is required to attend to the case. The final decision on a closure is made after joint inspection by the sectional CPO and another CPO in the EBD. The above inspection process should be completed within four weeks	

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>(ii) Para 8 to 20 - Procedures to serve Closure Order.</p>	<p>from the initial inspection by the BD staff. All staff of BD are required to handle potential closure cases with care, diligence and a sense of urgency. The WG considers the guidelines in the aspect of closure of dangerous buildings are clear and sufficient.</p> <p>(ii) WG considers guidelines in terms of the administrative procedures in serving a closure order is sufficient.</p>	

(VI) The follow-up action on complaints received and investigation/repair/demolition orders issued

	Issues of Concern	WG's Deliberations	WG's Recommendations
(A) Monitoring of follow-up action on complaints received			
(a) Nil	(i) Monitoring the reports from the public on building defects/ dilapidation	<p>(i) The WG considers BD's pledge for attending inspection arising from compliant on defective / dangerous buildings (i.e. 3 hours for emergency case, 10 days for non-emergency cases) is sufficiently clear and well monitored.</p> <p>(ii) The WG considers that the report on the findings and recommendations after inspection should be completed and submitted to SPO for endorsement as soon as practicable. Guidelines should be provided for the timeline of report submission. For cases warranting a repair / investigation / demolition</p>	<p>(i) It is suggested to provide guideline for the timeline of report submission which should also include recommendation of re-inspection cycle.</p> <p>(ii) It is recommended the re-inspection cycle monitoring should be monitored by SPO.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>order, the report should include recommendation of re-inspection cycle until expiry of the order. The SPO is responsible to ensure the agreed re-inspection cycle has been adhered to.</p> <p>(iii) The WG further suggests that the monitoring of re-inspection cycle should commence after the issuance of order.</p>	
(B) Monitoring of Progress of Repair Works			
<p>(a) EBD Manual Part III, Section 3 Instruction No. 1</p> <p>Inspection of Building Defects and Issue of Orders for Repair or</p>	<p>(i) Para 25 to 31 - Monitoring of Orders.</p>	<p>(i) The manual gives general guidelines for monitoring of outstanding repair / investigation / demolition orders under s.26 of the Buildings Ordinance.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
Demolition under s.26		<p>(ii) Once the order has expired, the staff of BD is required to carry out compliance inspection within a period twice the compliance period subject to a maximum of 6 months.</p> <p>(iii) For monitoring purpose, a list of expired cases will be generated at monthly intervals and the CPO is responsible for overall monitoring.</p> <p>(iv) The WG considers the existing monitoring mechanism could be enhanced by making use of the Sectional Project Co-ordination Meeting which is further elaborated in Topic (VII) below. It has the merit that the CPO would monitor all outstanding cases, including the performance of the Default Works Consultant (DWC) and BDC.</p>	<p>(i) It is recommended to monitor all outstanding orders by the Sectional Project Co-ordination Meeting.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>(v) The WG is of the view that the cycle of re-inspection for monitoring purpose should be considered according to the building condition on a case by case basis. Appropriate cycle of re-inspection for individual case should be recommended in the inspection report and monitored at the Sectional Project Co-ordination Meeting.</p> <p>(vi) At present, the Director of Buildings chaired the Progress Monitoring Committee to oversee enforcement works by EBD at bi-monthly intervals. One of the purposes of the meeting is to monitor long outstanding statutory orders. The WG is of the view that such monitoring mechanism should be maintained.</p>	<p>(ii) It is recommended to continue the monitoring of long outstanding orders at the Progress Monitoring Committee to oversee enforcement works by EBD chaired by the Director of Buildings.</p>

	Issues of Concern	WG's Deliberations	WG's Recommendations
<p>(b) EB Division Manual Part IV, Section 3 Instruction No. 5</p> <p>Demolition of Dangerous Buildings</p>	<p>(i) Para 5 to 7 - Priority Treatment.</p> <p>(ii) Para 10 to 12 - Pre-demolition survey.</p> <p>(iii) Para 15 to 19 - Precautionary Measures.</p> <p>(iv) Para 20 to 30 - Site safety supervision.</p> <p>(v) Para 35 to 37 - Completion of work</p>	<p>(i) There are guidelines for BD staff to accord top priority to handle the demolition works.</p> <p>(ii) For monitoring of progress, the staff of BD is required to report weekly to the SPO on the work performed by BDC. The SPO will provide monthly report to the CPO reporting on the status of demolition cases.</p> <p>(iii) The WG considers the guidelines for the defaulted demolition works and progress monitoring are clear and sufficient.</p>	

VII The administration and monitoring of government consultants and contractors in the carrying out of default works arising from investigation/repair/demolition orders

	Issues of Concern	WG's Deliberations	WG's Recommendations
(A) Management of DWC			
<p>(a) EB Division Manual Part IV, Section 1 Instruction No. 19</p> <p>Default Works Term Consultancy</p>	<p>Management of default works consultant.</p>	<p>The Manual is to be read in conjunction with the "Contract Management Unit (CMU) Manual Practice Note No. 5.04 – Administration of BD Term Consultancy" which is described in Item (b) below.</p>	
<p>(b) CMU Manual Practice Note No. 5.04</p> <p>Administration of BD Term Consultancy</p>	<p>(i) Para 4 - Information to the consultant.</p> <p>(ii) Para 5 - Consultant's reports.</p> <p>(iii) Para 7 - Site inspection</p>	<p>(i) The WG shares the view that employment of Default Works Consultant (DWC) is to overcome BD's lack of in-house resource problem. DWC, being professional agent of BD, is competent to carry out the works specified in the order. The WG considers excessive control over DWC will defeat its original purpose and it should be avoided.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
		<p>(ii) The WG agrees that it is not the intention under the principle of consultancy management for BD staff to check the consultant's professional work in great details nor to take over the duties of the consultant.</p> <p>(iii) General guidelines for the management of DWC are given in the manual. The WG considers the guidelines are clear and sufficient.</p>	
<p>(c) CMU Manual Practice Note No. 5.02</p> <p>Management of Consultancy Agreements</p>		<p>(i) Among others, the WG considers the quality of professional work and close monitoring of site progress are the essential elements in the management of DWC.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
	<p>(i) Para 4 and Appendix A</p> <ul style="list-style-type: none"> - Supervision and Checking of Consultant's Professional Work. <p>(ii) Para 9</p> <ul style="list-style-type: none"> - Reporting on the Performance of the Consultant. <p>(iii) Para 5.3 (b)</p> <ul style="list-style-type: none"> - Coordination among BD, Consultants and Contractors. <p>(iv) Para 7</p> <ul style="list-style-type: none"> - Programme <p>(v) Para 8</p> <ul style="list-style-type: none"> - Progress reports 	<p>(ii) Quality of DWC's professional work:</p> <ul style="list-style-type: none"> - According to the principle of consultancy management, the WG considers the guidelines given in this manual are clear and sufficient in terms of checking of DWC's work and mechanism to report DWC's performance. <p>(iii) Monitoring of site progress:</p> <ul style="list-style-type: none"> - Guidelines in the aspect of Sectional Project Co-ordination Meeting for site progress monitoring are given. <p>(iv) The WG considers the existing guidelines are clear and sufficient in terms of checking DWC's quality of work and monitoring of site progress.</p>	

	Issues of Concern	WG's Deliberations	WG's Recommendations
(B) Management of BDC			
<p>(a) EB Division Manual Part IV, Section 3 Instruction No. 1</p> <p>Inspection of Works</p>	<p>(i) Para 5 to 11 - Joint inspection with the contractor.</p> <p>(ii) Para 12 to 13 - Inspection of works in progress.</p> <p>(iii) Para 14 to 19 - Monitoring.</p>	<p>(i) Guidelines and procedures are given for mobilizing BDC to carry out under s26 and s28 Orders in default of owners. In case of works order without the employment of DWC, BD staff is responsible for the project management and supervision of BDC including site inspections, monitoring of progress and proper file recording.</p> <p>(ii) The WG considers that it is necessary to monitor site progress and performance of BDC in the same format as the Sectional Project Co-ordination Meeting. For the sake of convenience, the WG suggests BDC performance monitoring can be done at the Sectional Project Co-ordination Meeting.</p>	<p>(i) It is recommended that BDC performance and site works progress should be monitored at the Sectional Project Co-ordination Meeting.</p>

**Independent Expert Review
on the Buildings Department's Enforcement
Procedures and Practices
in relation to Dilapidated Buildings**

Executive Summary

May 2012

INTRODUCTION

Background

In the wake of the building collapse incident at 45J Ma Tau Wai Road on 29 January 2010, a Coroner's Inquest was held in August 2011 to look into the cause of death of four persons in the incident. In the same month, the Buildings Department (BD) gave an initial response to the Coroner's observation at a meeting of the Subcommittee on Building Safety and Related Issues of the Legislative Council Panel on Development, and made the commitment to conduct a comprehensive review on its internal building safety enforcement instructions as well as to consider the Coroner's recommendations. The report of BD's review (BD's Report) was submitted to the Development Bureau in December 2011.

2. Two independent experts, namely Professor Ko Jan-ming and Mr Daniel Lam Chun, were appointed by the Secretary for Development, Mrs Carrie Lam, to review BD's Report, so as to bring their knowledge and experience in the fields of building surveying and structural engineering to bear upon BD's Report, as well as to help the Government further enhance the effectiveness of BD's enforcement work in relation to the safety of dilapidated buildings. The two independent experts submitted their review reports to the Development Bureau in early May 2012.

Scope of the Independent Experts' Review

3. The independent experts were invited to examine the validity of the findings and recommendations made in BD's Report, which covers the following seven major areas of BD's enforcement work in relation to dilapidated buildings –

- the conducting of site inspections and the handling of emergency cases;
- the need for a joint inspection team consisting of both Building Surveyors (BSs) and Structural Engineers (SEs) to handle reports from the public on building defect / dilapidation;

- the referral of cases for cross-discipline consultation between the BS and SE grades, as well as the corresponding demarcation of responsibilities;
- the practice of issuing advisory letters prior to serving investigation / repair / demolition orders;
- the consideration to be taken account of and timing for serving investigation / repair / demolition orders;
- the follow-up action on complaints received and investigation / repair / demolition orders issued; and
- the administration and monitoring of Government consultants and contractors in the carrying out of investigation and remedial works in default of the owners in complying with investigation / repair / demolition orders.

Methodology of the Review

4. In examining BD's Report, the two independent experts carried out a comprehensive review of the relevant internal manuals and guidelines of the BD, joined BD staff in the conduction of on-site inspections for two cases relating to dilapidated buildings, and had meetings with BD's frontline staff, the working group that prepared BD's Report, senior management of the BD, as well as representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, and the Hong Kong Institute of Surveyors.

OBSERVATIONS AND RECOMMENDATIONS

5. The independent experts generally agree with the recommendations made in BD's report. Other key observations and recommendations made by the two independent experts are summarised as follows.

I. Conducting of site inspections and the handling of emergency cases

Observations

- BD's Report does not mention if there are regular reviews and updates on the Department's inspection equipment, nor does it mention whether the

introduction of more advanced inspection equipment has been considered (*Professor Ko*).

Recommendations

- Set up a task force with members who are acquainted with more sophisticated equipment. External advisers from the industry and the academia should be included (*Both experts*);
- Ensure a staff training policy is in place and to strengthen the training for staff, in particular those for the new hires (*Both experts*);
- Enrich BD's internal guidelines on the classification of building defects and dilapidation conditions with photographic records stored in an electronic database to allow easy reference by BD staff (*Professor Ko*); and
- Provide remote access (e.g. through special motor vehicles) to technical information to BD staff handling emergency cases (*Mr Lam*).

II. Need for a joint inspection team consisting of both BSs and SEs to handle reports from the public on building defect / dilapidation

Recommendations

- Although it is not necessary to have joint inspection for every single case, BD should set up clear guidelines for differentiating cases which call for joint inspection from those which do not (*Both experts*).

III. Referral of cases for cross-discipline consultation between the BS and SE grades, as well as the corresponding demarcation of responsibilities

Observations

- BD staff are required to classify the severity of the defects identified in and overall dilapidation conditions of buildings upon the completion of on-site inspections. Although BD's recommendation to correlate the classification of building defects and dilapidation condition with the need for cross-consultation is welcomed, it is necessary to ensure that sufficient training is provided to BD staff who need to exercise their professional judgment during the inspection process (*Professor Ko*);
- Referral of cases for cross-discipline consultation is necessary because under BD's existing organisation structure, each of the six geographical District Sections responsible for taking enforcement action against building safety problems comprise of only BSs or SEs (*Both experts*);

- While the mechanism of cross-discipline consultation is a viable means to ensure that specialised expertise from the disciplines of building surveying and structural engineering is available as necessary, having a mixed team with both BSs and SEs will be a better arrangement (*Both experts*); and

Recommendations

- Explore the feasibility of having both BSs and SEs in each of the District Sections in future (*Both experts*).

IV. Practice of issuing advisory letters prior to serving investigation / repair / demolition orders

Observations

- It is not necessary to abolish the practice of issuing advisory letters for all cases as –
 - the issuance of advisory letters can be conducted in parallel with the preparation of statutory orders (*Mr Lam*); and
 - the Coroner only had emergency cases in mind when making the suggestion to abolish the practice of issuing advisory letters (*Professor Ko*).

Recommendations

- Set up clear guidelines for differentiating cases which can benefit from the issuance of advisory letters from those which require immediate and radical follow-up actions (*Professor Ko*); and
- Rename “advisory letters” as “pre-order letters” to provide owners with stronger incentives to take follow-up actions with respect to the building defects identified early (*Mr Lam*).

V. Consideration to be taken account of and timing for serving investigation / repair / demolition orders

Observations

- Under the existing practice, statutory orders are usually issued some time after the site inspections. This means that officers may have to go through the inspection reports and case files to refresh their memories of the cases before statutory orders can be issued. Expediting the process for issuing statutory orders may thus bring about an enhancement to BD’s operational

efficiency (*Professor Ko*); and

- BD's recommendation to introduce a new category of "V – Severe" in the classification of overall building dilapidation conditions is a good move as it requires BD staff to consider the need of taking urgent actions (e.g. emergency works) for the case. Clear guidelines on how to differentiate this new category from the existing four categories should also be provided to BD staff for reference (*Professor Ko*).

Recommendations

- Liaise with the Land Registry to shorten the time required for ownership checks, which are necessary before statutory orders can be issued (*Mr Lam*).

VI. Follow-up action on complaints received and investigation / repair / demolition orders issued

Observations

- BD recommended in its report that inspection reports should be submitted within one month after the on-site inspections, and that such reports should include suggestions on the time for the next inspection. Both recommendations are considered good moves. Clear guidelines on how to determine the time for the next inspection should also be made available to BD staff for reference (*Professor Ko*); and
- Concerning the Coroner's recommendation to closely monitor the progress of repair works for building dilapidation cases, BD's suggestion to determine the re-inspection cycle on a case-by-case basis is supported as it will ensure that the cases are put under regular monitoring (*Both experts*).

Recommendations

- For cases deemed necessary, consider the use of sensory systems that can be operated through the Internet for remote monitoring (*Both experts*); and
- Establish clear-cut principles on how cases involving outstanding orders should be handled (*Professor Ko*).

VII. Administration and monitoring of Government consultants and contractors in the carrying out of investigation and remedial works in default of the owners in complying with investigation / repair / demolition orders

- No specific observations and recommendations were made.

VIII. Other observations and recommendations

Observations

- The fact that BD's professional and technical staff often need to handle enquiries from the public that do not require their expertise may have a negative impact on staff morale (*Both experts*).

Recommendations

- Step-up the efforts with respect to publicity and public education, and consider joining forces with the professional bodies, District Councils, the Hong Kong Housing Society and Urban Renewal Authority. One of the major goals is to ensure that owners are aware of their responsibilities in upkeeping the safety of their buildings (*Both experts*);
- Review BD's manpower needs in the light of its workload and performance targets (*Both experts*);
- Ensure quality assurance is built into the system, such as in the form of a written document (*Both experts*);
- Set up dedicated teams for handling complaints from the public that do not require professional or technical input (*Both experts*);
- Regularly review BD's internal manuals and guidelines. Views from BD staff and outsourced consultants should also be solicited (*Professor Ko*); and
- Promote a corporate culture with an emphasis on providing quality services to the public (*Professor Ko*).

Buildings Department's Response to the Observations and Recommendations of the Independent Experts

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
(I) Conducting of Site Inspections and the Handling of Emergency Cases		
BD's report <u>does not mention</u> if there are <u>regular reviews</u> and updates on the Department's <u>inspection equipment</u> , nor does it mention whether the introduction of <u>more advanced inspection equipment</u> has been considered.	Professor Ko	BD notes the experts' recommendation. It is proposed in BD's report that a centralised body will be established to continuously upkeep, procure and replace as necessary the Department's tools and equipment. The centralised body will actively consider the need for introducing new equipment in the process.
Set up a <u>task force</u> with members who are <u>acquainted with more sophisticated equipment</u> . <u>External advisers</u> from the industry and the academia should be included.	Both Experts	BD understands from the experts' reports that the aim of setting up the task force is to provide a channel for BD staff to come into contact with new technologies offered by the market. In this regard, the BD has been and will continue to take measures to keep BD staff abreast of the latest technologies and investigative methods. For instance, BD currently provides a variety of training courses, seminars and conferences to its staff, many of which are organised/hosted by external parties (including professional bodies and experts in the relevant fields) and are related to various investigative technologies available in the market. In addition to the above and in the light of the experts' recommendation, the BD will consider whether the views of industry specialists and the academia can be regularly tapped through its established consultative platforms.

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
Ensure a <u>staff training policy</u> is in place and to <u>strengthen the training</u> for staff, in particular those for the <u>new hires</u>	Both Experts	BD shares the experts' view and will continue to provide structured and regular training to its staff under its established Training and Development Framework. BD will also explore how trainings can best be offered to new members of the Department.
Enrich BD's internal <u>guidelines</u> on the classification of building defects and dilapidation conditions with <u>photographic records</u> stored in an <u>electronic database</u> to allow easy reference by BD staff.	Professor Ko	BD agrees with the expert's recommendation and will revise its manuals and guidelines by adding suitable photographs and illustrations. BD will also continue to share the manuals and guidelines electronically with its staff via its knowledge sharing system.
Provide <u>remote access</u> (e.g. through special motor vehicles) to technical information for staff handling <u>emergency cases</u> .	Mr Lam	BD agrees with the expert's recommendation and will proceed to explore the feasibility of introducing similar types of equipment.

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
(II) Need for a Joint Inspection Team Consisting of Both Building Surveyors and Structural Engineers to Handle Reports from the Public on Building Defect/Dilapidation		
<p>Although it is not necessary to have joint inspection for every single case, BD should set up <u>clear guidelines</u> for differentiating cases which call <u>for joint inspection</u> from those which do not.</p>	<p>Both Experts</p>	<p>BD agrees with the expert's recommendation. BD has suggested in its review report to state clearly in the revised guidelines and manuals that when the condition of a building reaches a certain point in the severity index scale or belongs to a certain category of buildings in terms of its overall building dilapidation condition, cross discipline consultation will be necessary, which also means that the condition of the building will be assessed by both Building Surveyors (BSs) and Structural Engineers (SEs). Together with the fact that BD will be enriching its written guidelines with photographs to provide additional reference to its staff in the determination of the severity of the building defect/dilapidation, BD is confident that the guidance provided to its staff will be sufficiently clear.</p>

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
(III) Referral of Cases for Cross-discipline Consultation Between the Building Surveyor and Structural Engineer Grades, and the Corresponding Demarcation of Responsibilities		
<p>While the mechanism of cross-discipline consultation is a viable means to ensure that specialised expertise from the disciplines of building surveying and structural engineering is available as necessary, having a <u>mixed team with both BSs and SEs</u> will be a <u>better arrangement</u>.</p>	Both Experts	<p>BD has completed a reorganisation in 2011 to streamline its operations and staffing arrangements. During the staff consultation exercise for the reorganisation, the arrangement to have both BSs and SEs in the same team had been explored, and the cross-discipline consultation was considered the appropriate arrangement for the time being.</p> <p>Nevertheless, BD welcomes the experts' recommendation, and will take into consideration the recommendation to fine-tune its staff arrangements in its next review on the BD's organisational structure.</p>
(IV) The Practice of Issuing Advisory Letters Prior to the Service of Investigation/Repair/Demolition Orders		
<p>It is <u>not necessary</u> to abolish the practice of issuing advisory letters for all cases because –</p> <ul style="list-style-type: none"> • the <u>issuance of advisory letters</u> can be <u>conducted in parallel</u> with the preparation of statutory orders (Mr Lam); and • the Coroner <u>only</u> had <u>emergency cases</u> in mind when making the suggestion to abolish the practice of issuing advisory letters (Professor Ko). 	Both Experts	BD agrees with both of the experts' observations.

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
<p>Set up <u>clear guidelines</u> for <u>differentiating cases</u> which can benefit from the issuance of advisory letters from those which require <u>immediate and radical follow-up</u> actions.</p>	<p>Prof. Ko</p>	<p>The recommendation will be taken on board. In fact, BD's existing guidelines already provide that for emergency cases requiring immediate and radical follow-up actions, instead of issuing advisory letters, BD staff should arrange Government contractors to immediately carry out the necessary reinforcement/repair works. It has been proposed in BD's report that a new rating in the severity index scale (i.e. "V – Severe") be added in the classification of building dilapidation conditions. BD staff will be required to consider taking immediate follow-up actions if the building falls under the proposed category, in addition to the rating of "IV – Poor" that already exists. Photographs and illustrations will also be provided in the guidelines and manuals for better reference by BD staff.</p>
<p><u>Rename "advisory letters" as "pre-order letters"</u> to provide owners with stronger incentives to take follow-up actions with respect to the building defects identified early.</p>	<p>Mr Lam</p>	<p>For cases where the issuance of a statutory order is justified, BD will write to the owner in the first instance, advising of its plan to issue a statutory order afterwards. BD will continually review the wording of the letter in the light of its enforcement experience and consider as necessary how the letter can be best phrased to state BD's intention clearly.</p>

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
(V) Consideration to be Taken Account of and Timing for Serving Investigation / Repair / Demolition Orders		
<p>Under the existing practice, statutory orders are usually issued some time after the site inspections. This means that <u>officers may have to go through the inspection reports</u> and case files to <u>refresh their memories</u> of the cases before statutory orders can be issued. <u>Expediting the process</u> for issuing statutory orders may thus bring about an enhancement to BD's <u>operational efficiency</u>.</p>	Professor Ko	<p>Upon the completion of site inspection, the inspecting officer has to prepare and submit to his senior for endorsement an inspection report to summarise his findings and to recommend the follow-up action for the case. As these inspection reports already include both written and photographic records of all important facts, there should not be a problem of memory fading when the case is brought up for discussion at a later stage. Noting the expert's recommendation, the BD will, as mentioned in its review report, require that inspection reports be completed and submitted for endorsement within one month of the inspection.</p>
<p>BD's recommendation to introduce a <u>new category of "V – Severe"</u> in the classification of overall building dilapidation conditions is a <u>good move</u> as it requires BD staff to consider the need of taking urgent actions (e.g. emergency works) for the case. <u>Clear guidelines</u> on how to differentiate this new category from the existing four categories <u>should also be provided</u> to BD staff for reference.</p>	Professor Ko	<p>BD agrees with the expert's recommendation. BD will make sure that the guidelines will be written as clearly as possible and will also enrich the written guidelines with photographs and illustrations.</p>

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
<p>Liaise with the Land Registry to <u>shorten the time required for ownership checks</u>, which are necessary before statutory orders can be issued.</p>	<p>Mr Lam</p>	<p>BD has in the past been liaising closely with the Land Registry on the process for ownership check and will continue the communication and liaison with the Land Registry to explore possible ways for further enhancing the existing arrangements. It should also be mentioned that, as a general practice, BD will accord top priority to emergency cases, and statutory orders, if necessary, can usually be issued in a matter of days for such cases.</p>
<p>(VI) The Follow-up Action on Complaints Received and Investigation/Repair/Demolition Orders Issued</p>		
<p>BD recommended in its report that <u>inspection reports</u> should be <u>submitted within one month</u> after the on-site inspections, and that such reports should <u>include suggestions on</u> the time for the <u>next inspection</u>. Both recommendations are considered <u>good moves</u>. <u>Clear guidelines</u> on how to determine the time for the next inspection <u>should also be made available</u> to BD staff for reference.</p>	<p>Professor Ko</p>	<p>BD agrees with the expert's recommendation. BD will make sure that the guidelines will be written as clearly as possible.</p>

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
<p>Concerning the <u>Coroner's recommendation</u> to closely monitor the progress of repair works for building dilapidation cases, <u>BD's suggestion</u> to determine the <u>re-inspection cycle</u> on a case-by-case basis is supported as it will <u>ensure that the cases are put under regular monitoring.</u></p>	<p>Both Experts</p>	<p>BD welcomes the experts' views and will endeavour to implement this recommendation as soon as possible.</p>
<p>For <u>cases deemed necessary</u>, consider the use of <u>sensory systems</u> that can be operated through the Internet for <u>remote monitoring.</u></p>	<p>Both Experts</p>	<p>BD notes the experts' recommendation and shares the view that the use of advanced technology such as remote monitoring has its merits. In view of the cost implications and potential legal and technical issues involved in the installation of remote monitoring systems in private premises, BD will have to study the feasibility of such application. The centralised body proposed to be established will consider the abovementioned issues in a holistic manner.</p>

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
Establish <u>clear-cut principles</u> on how cases involving <u>outstanding orders</u> should be handled.	Professor Ko	BD has already put in place various mechanisms to monitor the progress of outstanding cases. Based on BD's past experience, the reason why certain statutory orders have remained outstanding for an extended period of time is often complex, and such cases will be tackled on a case by case basis in BD's regular sectional and departmental meetings. Any principles on how such cases can be handled identified during such meetings will be incorporated into BD's manuals and guidelines. Information on such principles will also be made available to BD staff through the regular meetings of the individual divisions and sections.
(VII) Administration and Monitoring of Government Consultants and Contractors in the Carrying Out of Investigation and Remedial Works in Default of the Owners in Complying with Investigation / Repair / Demolition Orders		
No specific observations and recommendations.	Not Applicable	Not Applicable.
(VIII) Other Observations and Recommendations		
<u>Step-up</u> the efforts with respect to <u>publicity and public education</u> , and consider <u>joining forces</u> with the professional bodies, District Councils, the Hong Kong Housing Society and Urban Renewal Authority. One of the major goals is to ensure that owners are aware of their responsibilities in upkeeping the safety of their buildings.	Both Experts	BD agrees with the experts' recommendation and will consider how BD's cooperation with the mentioned organisations can be strengthened.

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
<p>Review BD's manpower needs in the light of its workload and performance targets.</p>	Both Experts	<p>BD agrees with the experts' recommendation and will continue to carry out annual reviews on its manpower needs and, if necessary, request for addition resources with the help of the Development Bureau pursuant to the established practice for all bureaux and departments.</p>
<p>Ensure quality assurance is built into the system, such as in the form of a written document.</p>	Both Experts	<p>BD shares the expert's view that both quality audit and procedural audit are equally important. To this end, all officers in BD are supervised by their seniors. Certain decisions and recommendations are also required to be endorsed by officers at higher ranks. While these quality assurance measures have already been included in BD's internal manuals and guidelines, BD will further consider how best to highlight the importance of such issues in its internal documents.</p>
<p>The fact that BD's professional and technical staff often need to handle enquiries from the public that do not require their expertise may have a negative impact on staff morale. BD should thus set up dedicated teams for handling complaints from the public that do not require professional or technical input.</p>	Both Experts	<p>BD shares the experts' view that general question concerning BD's work can be handled by dedicated teams so as to allow BD's professional and technical staff to focus on tasks that require their specialist skills. Since 2001, BD has been moving in this direction by soliciting the assistance of the 1823 Call Centre, which specialises in handling general public enquiries and complaints. Currently, the 1823 Call Centre handles some 100,000 enquiries/complaints for BD annually and has significantly relieved the Department's workload. The remaining enquiries are mostly case specific and/or technical in nature, and can most efficiently be answered by officers who are</p>

Observation/Recommendation	Raised by	Response of the Buildings Department (BD)
		<p>familiar with the latest progress of the case and who have visited the site in person.</p> <p>BD will regularly liaise with and review the information provided to the 1823 Call Centre, with a view to better equipping the 1823 Call Centre in handling enquiries and complaints in relation to BD's work.</p>
<p><u>Regularly review BD's internal manuals</u> and guidelines. <u>Views from BD staff</u> and outsourced consultants should also be solicited.</p>	<p>Professor Ko</p>	<p>BD appreciates the value of keeping the internal manuals and guidelines under constant review and that views of its staff and other stakeholders will prove to be valuable sources of comments in this regard. At present, the views and feedback of frontline staff including those obtained from outsourced consultants, are discussed in the regular Unit, Sectional and Divisional meetings. BD will continue to take into account the views of its staff and other stakeholders in the review of internal manuals or guidelines.</p>
<p>Promote a <u>corporate culture</u> with an emphasis on providing <u>quality services</u> to the public.</p>	<p>Professor Ko</p>	<p>BD welcomes the expert's recommendation and will consider how this can be best implemented.</p>