

PERIODIC STRUCTURAL INSPECTION
OF EXISTING BUILDINGS

BUILDING OWNER'S GUIDE

Q1 What is the purpose of inspecting the structure of buildings periodically?

A1 All buildings in Singapore, except for detached, semi-detached, terraced or linked houses which are used for residential purposes and temporary buildings need to be inspected at regular intervals by professional engineers in accordance to Section 28 of the Building Control Act.

The purpose of such inspections is to ensure that structural defects due to lack of maintenance can be detected and rectified early to keep our buildings structurally sound for continued occupation, particularly as buildings age, and wear and tear set in.

Through such inspections, appropriate measures can be taken to prevent further deterioration.

Q2 What do I need to do when I receive the PSI Notice?

A2 BCA will serve building owners with a Notice of Inspection when the building is due for Periodic Structural Inspection (PSI). You can play your part by:

- Appointing a professional engineer promptly;
- Providing access to critical parts of the building to be inspected by your professional engineer. This could include the removal of claddings/ false ceilings at specific locations requested by the professional engineer for inspection of structural members hidden behind claddings/false ceilings (eg. concealed timber roof structure or other critical structures);
- Providing the necessary equipment/ machinery such as ladders, platforms or aerial ladder cranes;
- Providing a set of as-built structural layout plans;
- Providing information on the maintenance and history of the building, particularly if any addition or alteration works had been carried out;
- Providing previous periodic inspection reports for reference;
- Carrying out rectification works and/or monitoring of defects highlighted by your professional engineer promptly;
- Maintaining your building in good condition at all times.

Q3 How often do I need to carry out structural inspection of my building?

A3 Buildings which are used for residential purposes only (eg. condominiums and apartments) are to be inspected at 10-yearly intervals.

All other types of buildings (e.g. commercial, industrial and institutional buildings) are to be inspected at 5-yearly intervals.

Nevertheless, this does not mean that you should inspect your building only when required to do so. As and when defects or deterioration are detected,

you should engage a structural engineer to investigate and propose remedial measures.

Q4 Can my professional engineer purchase a set of my building's structural layout plans on my behalf for the purpose of PSI?

A4 Yes, your professional engineer can make an *application on your behalf* via <https://www.bca.gov.sg/legalsearch/LegalSearchapp.aspx>

The engineer would need to attach the Documentary Proof of Ownership of property (latest property tax bill, Title Deed or Notice of Transfer) when making the application.

Q5 Can I engage any structural engineer to inspect my building?

A5 No. You can only engage a professional engineer (PE) in the civil or structural engineering discipline who is registered with the Professional Engineers Board (PEB) and has no professional nor financial interest in the building. For example, a PE would be considered as having a professional or financial interest if he has been responsible for the design or construction of the building or any of the building works.

Q6 I am an individual unit owner of a building with multiple owners (but the building is not subdivided and managed by a management corporation (MCST) established under the Land Titles (Strata) Act). Can I appoint my own professional engineer to inspect my unit? What are the required conditions for such an appointment?

A6 No, owners of a building with multiple owners (but the building is not subdivided and managed by a management corporation (MCST) established under the Land Titles (Strata) Act) shall jointly appoint a professional engineer to inspect the building within the stipulated timeframe. The professional engineer must inspect all units of the building and submit a joint report to BCA.

Q7 What does the Periodic Structural Inspection (PSI) process involve?

A7 Periodic Structural Inspection (PSI) may differ slightly from building to building, would likely involve the following:

- Assessment of loading and usage;
- Identification of defects, deterioration, distress and deformation;
- Determination of whether such defects, deterioration, distress and deformation are of structural significance;
- Assessment of whether addition and alteration works have been carried out to the building structure according to approved plans;

- Identification of aggressive environments that may be detrimental to the building structure; and
- Recommendation of remedial measures to be carried out.

Where defects of structural significance are detected, the professional engineer may recommend a full structural investigation (2nd stage investigation) of localised areas or the whole building for BCA's consideration and approval.

Q8 What does a 2nd stage investigation of Periodic Structural Inspection (PSI) involve?

A8 A 2nd stage investigation generally involves:

- Obtaining detailed information relating to the design, construction, maintenance and history of building;
- Assessing the structural adequacy of the building by checking the structural plans and calculations, and reconstructing the structural plans if they are not available;
- Carrying out tests on the materials used and structural elements of the building;
- Carrying out load test on parts of the building if necessary;
- Recommending appropriate safety precautions and remedial measures to restore the integrity of the building structure.

Q9 Can I engage a different professional engineer for the 2nd stage investigation?

A9 Yes you can engage any professional engineer registered with the Professional Engineers Board (PEB) who has no professional nor financial interest in the building.

Q10 If the professional engineer engaged by the management corporation of my building did not inspect my unit, can I request that he inspect my unit?

A10 Yes, you can request, through the management corporation, the appointed professional engineer to inspect your unit.

Q11 I am an individual unit owner of a building with multiple owners. Can the professional engineer jointly appointed by all owners of my building inspect only selected units?

A11 No, the professional engineer jointly appointed by all owners of a building with multiple owners must inspect all units of the building and submits a joint report to BCA.

Q12 I have appointed a professional engineer but he never seems to come in person to inspect my building. Is this allowed?

A12 Your appointed professional engineer is expected to carry out a comprehensive visual inspection based on his engineering judgement and assessment. He is expected to take active and personal interest in the planning and carrying out of the inspection of the building. A situation where he does not visit the building or totally delegates the inspection work to his assistant or another person who is not a registered professional engineer is not acceptable. You are encouraged to notify BCA for follow-up with the professional engineer if you have such evidence.

Q13 My building is tenanted and I am unable to schedule inspections of all units within the timeframe that BCA has given to complete the inspection. What should I do?

A13 You can write to BCA for an extension of time stating your reasons.

Q14 What happens after my professional engineer submits the inspection report?

A14 BCA will vet through the report and may seek clarification from the professional engineer with regards to the contents of the report. The professional engineer is required to respond to clarifications and, where the situation warrants, BCA may also conduct a joint site inspection of the building with the professional engineer and/or require the professional engineer to conduct a presentation to BCA.

Upon the acceptance of the report, BCA will write to the building owner to follow up with the recommendations of the professional engineer on the defects detected. You should carry out the remedial works promptly to prevent further deterioration of the building and thereafter submit the professional engineer's certification on the completion of the remedial works, where applicable.

Q15 My professional engineer has informed me that he requires more time to finish the entire inspection and prepare the report to be submitted to BCA, as inspection of some areas have taken more time than expected (e.g. due to difficulty in gaining access). What should I do?

A15 You can write to BCA for an extension of time stating your reasons.

Q16 My building has just been renovated recently or is presently undergoing addition and alteration works (A/A). Can its periodic structural inspection be postponed to a later date?

A16 No, this is because the scope of A/A works do not involve the structural inspection and submission of inspection report by an independent professional engineer as required under Section 28 of the Building Control Act.

Q17 I have the intention to carry out extensive A/A works to my building in the near future. Can the periodic structural inspection be postponed?

A17 The request can be considered on a case-to-case basis.

Q18 I have the intention to demolish my building in the near future. Can it be exempted from periodic structural inspection?

A18 Please let us know the date of your planned demolition for our consideration. You should also inform us when the building has been demolished so that notices would not be issued in future.

Q19 I am in the process of selling my building. Can it be exempted from periodic structural inspection?

A19 The building still needs to be inspected. However, if you have the agreement of the buyer to comply with our Notice of Inspection, you can inform us of this agreement and we can consider letting the new owner take over the compliance.

Q20 My PE who has just carried out periodic structural inspection of my building recommended some remedial works. I now intend to sell my building. Can I be exempted from carrying out the repairs?

A20 No, you cannot.

Q21 I would like to carry out some addition & alteration (A/A) works to my building. How do I know if BCA's approval is required?

A21 Most building works require prior approval from BCA and other relevant government agencies. However, BCA does exempt some minor works from the approval process. The building works that do not require approval from BCA referred to as "Insignificant Building Works", can be viewed on BCA's website at: <http://www.bca.gov.sg/WorksApprovalNotRequired/others/fs.pdf> Nevertheless, if in doubt, you should consult an architect or professional to advise you accordingly.

Q22 I noticed some construction works being carried out in my neighbourhood. It appears to be unsafe or improper. What should I do?

A22 You can inform BCA by calling 1800 3425222 for our follow up.