

INDIAN SOCIETY OF STRUCTURAL ENGINEER



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Date: 28 Sept 2013 Ref: ISSE/CM/Letter1

Honourable Chief Minister Maharshtra State Mantralaya, Mumbai.

Subject: Building collapses and role of Structural Engineers.

Respected Shri Prithviraji Chavan,

Indian Society of Structural Engineers (ISSE) is a body of professional structural engineers. Our main objective is to guide structural engineers through technical publications, seminars, workshops and expert lectures to update current knowledge to international standards.

We are very much worried about the various building collapses occurred recently. We understand that the Government is equally concerned about how to prevent such collapses.

We would like to draw your kind attention to the reasons of building collapse. Looking at the history of building collapse, it is evident that building collapse occurs due to following reasons -

- non-engineered construction (Unauthorised construction without any technical advise),
- unauthorised addition and alterations / tempering with structural members (which results into damage of the structure and affects stability),
- overloading of the structure,
- aging and neglect of maintenance by the occupants.

In all major cities like Pune, Mumbai, Navi Mumbai there is a system of licensing structural engineers. The system is properly working for creating safe structures.

We would like to bring to your attention that none of the collapse had occurred due to the fault of any structural engineer. It is our humble request not to blame structural engineer who is only responsible for his structural design.

Developer / Builder is in absolute control over the building construction activity with inputs from various appointed agencies like Architects, structural engineers, site engineers, contractors, etc.

Architect prepares the basic building plans which are approved by the local authorities. Structural engineer plays an important role in structural analysis and design of the building based on the Bureau of



Indian Standard guidelines. Contractor executes his design at site as per the drawing provided. The role of structural engineer is to provide only structural design for the building and make occasional site visits to inspect the work during construction.

Project management and site supervision agencies monitor the actual execution at site for material quality and implementation of the design provided by the structural engineer.

Once the building is complete with all services and finishes, architect provides the completion certificate. The structural engineer provides stability certificate based on the site supervision certificate issued by Project Management Consultant (PMC) / site supervisor. Site supervision certificate is provided by the project management Consultant (PMC) or site supervisor who continuously supervises the work at site and controls quality of material, workmanship as per design and drawing and states that the material used for construction was as per required standard and work executed as per approved plans of architects and structural engineer.

Once the building is handed over and occupied, it is the responsibility of the occupants / owner to maintain the building and the structure and do not make any changes. None of the above technical agencies have any role for regular maintenance of the building.

In the light of above submission and in consideration to the ground realities, we request you to advise your concerned departments to do justice to Structural Engineers by not involving them beyond their scope of work.

We , ISSE are with you for any technical help or recommendation to minimize risk of such collapses.

Thanking you.

Yours faithfully,

The President

Prof. G. B Chaudhari Ex HOD STR. Dept. VJTI

CC: 1. Secretary Urban Development Department

2. Director, Town Planning Department, Pune