ISSE

INDIAN SOCIETY OF STRUCTURAL ENGINEERS

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बृ.म.मा. आयुक्तांचे कार्यालय
22 JUL 2024
बृहन्मुंबई महानगरपालिका

Ref: MCGM Comm. /ISSE / 508
Date: 22 July 2024

To,
Hon. Municipal Commissioner
Municipal Corporation of Greater Mumbai
Head Office, Fort, Mumbai 400001

Kind Attn: Hon. Municipal Commissioner

Subject: Suggestions for improving safety of our built environment.

Respected Sir,

ISSE is a premier association of Professional Structural Engineers with its Head Quarters at Mumbai. ISSE looks after the development of the profession to the benefits of Indian society with the focus on construction industry in particular. We assist Government, Self Government, Municipal Corporations and other Corporate bodies in framing their policies for sound and stable structures in their built assets.

We conduct technical lectures, seminars for updating knowledge of our members. We publish a technical journal for free circulation amongst members and complementary to heads of industries. We have more than 3000 members.

In the recent past we have witnessed various failures of structures in and around Mumbai like Ghatkopar Hoarding collapse, Collapse of steel parking tower under construction at Wadala, failure of shoring system during deep excavations for new basement construction during monsoon period and other such accidents. To minimize accidents and for the safety of our citizens at large, ISSE committee would like to put forward some suggestions.

1. **Registration of Geotechnical consultant and MEP** (Mechanical Electrical Plumbing consultants) **Consultants:** In the present MCGM DCR, there is no provision for registration for Geotechnical consultant and MEP consultant which is very crucial for the safety of building during and after construction. This can be implemented as per recommendations of National Building Code and as available in UDCPR. (copy enclosed)

2. **Keeping sufficient distance between basement and plot boundary**: At per present rule, basement can be provided at a distance of 1.5m from plot boundary. This amounts to virtually excavation in the full plot area up to deeper depths and this endangers stability of adjacent structures. Many a times, accidents / failure of adjacent structure occurs during monsoon due to failure of shoring system. Depending on the depth of excavation, if the excavation depth exceeds 6m, a minimum **6m** distance can be kept between plot boundary and basement. This will minimize risk of failure. A planning rule can be amended suitably. This will also have better open space around the building and will help to improve the green cover.

3. **Asking for submission of basic data and calculations for hoarding structures and proposed all buildings in the prescribed format:** It will be a good idea to ask the concerned structural engineer to submit the Design basis report along with other municipal submissions for obtaining construction permission. We have enclosed suggested formats for this. (copy enclosed) MCGM can randomly scrutinize the data submitted or get it vetted by the panel of experts before approving the proposal. This will minimize the risk of failures and improve the safety of our structures.

   At present, detail technical evaluation of proposal is carried out only for high rise buildings above 120m height with the help of high rise committee.

4. **Investigating any accident during or after construction**: There is a provision in UDCPR to form a committee for investigating any failure / accident. Similar provision can be added in MCGM DCR which will help in understanding the cause of failure and fixing the responsibility. (Copy enclosed). We also urge you to make the previous failure reports public, so that, we can learn from the past mistakes.

ISSE is ready to provide any technical help to MCGM for improving the safety of our structures. We hope that you will consider our suggestions positively.

Thanking you.

Yours faithfully,

For President ISSE	Hon. Secretary	Treasurer
S. H. Jain	H. S. Vadalkar	Manasi Nandgaonkar

Encl. : 1. Copy of UDCPR extract for duties and responsibility of Geotechnical consultants and other consultants, Certification formats by Structural Engineer , formation of expert committee to investigate any accident / failure of structure,
2. Draft Design Basis Report for Hoarding structure
3. Draft Design Basis Report for buildings.

CC: Chief Engineer D. P.

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