

ISSE

INDIAN SOCIETY OF STRUCTURAL ENGINEERS



C/o. S. G. Dharmadhikari, 24, Pandit Niwas, S. K. Bole Marg, Dadar (W), Mumbai - 400 028 India
Tel. : +91-22-2431 4423, 2422 1015 E-mail : issemumbai@gmail.com Website : www.isse.org.in

PRESIDENT : Shantilal Jain, **SECRETARY** : Hemant Vadalkar **TREASURER** : M. M. Nandgaonkar,

To,
The Municipal Commissioner
Brihanmumbai Municipal Corporation
Municipal Head Office
Mahapalika Marg, Fort, Mumbai 400 001



Date : 12th July 2022

Subject: Stability of sides of deep excavation and related parameters.

Dear Sir,

With the onset of monsoon, problems related to safety and stability of sides of deep excavation carried out to accommodate Basement / Multiple Basements have come to the fore. During last few days there have been few events of failure raising concern once more. In this regard, we wish to suggest following to improve efficiency of enabling system and safety:

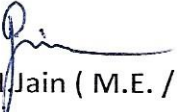
Most common form of excavation enabling system is shore piles provided between boundary wall and external face of RCC wall of Basements. These piles are generally designed as cantilever piles or piles with anchors at multiple levels depending upon depth of excavation. Boring for these piles in a small gap is a major challenge.

In order to ensure safe and effective shoring system, we recommend marginal space from boundary wall to Basement edge to be minimum 3m up-to 10m depth of excavation and it shall be 4.0 m to accommodate larger diameter Piles for excavation exceeding 10m.

Modifications in development control rules or issuing circular effecting these changes will significantly help in having safe basement excavation and to prevent caving / accidents happening every year during monsoon.

Thanking you,

Sincerely yours,


S.H. Jain (M.E. / FIE)

President

Indian Society of Structural Engineers

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PRESIDENT : Shantilal Jain, **SECRETARY** : Hemant Vadalkar **TREASURER** : M. M. Nandgaonkar,

To,
The Chief Engineer (D. P.)
Brihanmumbai Municipal Corporation
3rd Floor, Annex. Bldg., Municipal Head Office
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