

Safety Assessment of Slab Construction Loads in Wall-Type Building

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ABSTRACT

In this study, a model for predicting construction loads on slabs was modified to consider regular and temporary supports, particularly in the step of removing temporary supports. The model also accounted for the effective supporting area of shores to improve load prediction accuracy. To verify the model, shore loads across four floors were measured over 58 days in a wall-type residential building. Material properties were tested using reinforcement and concrete specimens. The comparison between predicted and measured loads confirmed the accuracy of the model. The safety assessment concluded that the slabs had sufficient strength against flexure, cracking, and shear, with a 0% probability of failure due to flexure.



Fig. 1 Measurement of shore load using load cell

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