

Finite Element Investigation on the Effect of Aspect Ratio in Diagonally Stiffened Steel Plate Shear Wall

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A finite element model has been developed and verified with reference to the experiment done by other researchers in the past, to examine the effect of diagonal stiffener in SPSWs. This paper deals with the effect of aspect ratio of infill plate of SPSWs in case of lateral loading, which shows important relationship. Increase in aspect ratio of the infill plate, increases the strength of the unstiffened as well as diagonally stiffened SPSWs.

Keywords: Steel plate shear wall; Aspect ratio; Infill plate; Lateral loading.

Field of Research: Civil and Structural Engineering