

Transient Analysis of Laminated Rubber Bearing Bridge during High Intensity Earthquake

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Abstract : The effectiveness of the seismic response between 3D solid elements model and simplified beam elements model has been investigated. At present, the studies of the numerical modelling using 3D solid element are minimal due to numerical software constraint. The finite element analysis using 3D solid element was chosen to study displacement response of laminated rubber bearing (LRB) during high intensity Kobe earthquake. In this research a simply supported bridge (single span), fixed at support was analysed by using transient analysis subjected to real time history loading of Kobe earthquake.

Keywords : laminated rubber bearing, solid element, simplified beam element, transient analysis

Conference Title : ICCSEE 2014 : International Conference on Civil, Structural and Earthquake Engineering

Conference Location : Istanbul, Türkiye

Conference Dates : March 24-25, 2014