



Earthquake Engineering Research Institute

Deformation Capacity of Unreinforced Masonry Elements By Dr. Katrin Beyer

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@ BOWEN LABORATORY**

ABSTRACT: This presentation takes a fresh look at the in-plane drift capacity of URM walls and discusses in particular the influence of the boundary conditions, the size of the test unit and the applied loading history on the drift capacities of URM walls. Starting from the idea of the simple plastic hinge models for reinforced concrete elements, the first mechanical models for the in-plane drift capacities of unreinforced brick masonry walls are presented and compared to the empirical approaches implemented in current codes. The presentation continues with outlining the challenges that are related to stone masonry and points out new parameters that could play a role when determining the displacement capacity of stone masonry walls.

