

# LATERAL DRIFT LIMITS FOR STRUCTURAL CONCRETE SLAB-COLUMN CONNECTIONS, INCLUDING SHEAR REINFORCEMENT EFFECTS

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## **ABSTRACT**

Floor systems composed of two-way slabs without beams are frequently used because they offer several advantages, including relatively simple formwork and the potential for shorter story heights. Slab-column frame systems are common in regions of low to moderate seismic risk, where they are allowed as a lateral-force-resisting system (LFRS), as well as in regions of high seismic risk for gravity systems where moment frames or shear walls are provided as the main LFRS. However, past earthquake damage has shown that slab-column frames do not constitute a suitable main LFRS in regions of high seismic risk because of their relative flexibility and the potential for brittle punching shear failures in the slab-column connection region. Significant experimental research has taken place during the past forty years to evaluate the performance of slab-column connections under cyclic, lateral loading. Joint ACI-ASCE Committee 352 is currently updating their report “Recommendations for Design of Slab-Column Connections in Monolithic Concrete Structures,” to include more specific recommendations for slab-column connections with respect to lateral drift limits. The proposed recommendations reflect recent research, as well as changes to relevant ACI 318 provisions. The scope has also been expanded to discuss both reinforced concrete and post-tensioned slabs, for cases with and without shear reinforcement. This paper provides an overview of the updated recommendations in this report, with specific emphasis on the lateral drift limits for slab-column connections, accompanying shear reinforcement recommendations and basis for these updates. This abstract is for a session sponsored by Joint ACI-ASCE Committee 352 that is proposed to be part of a Concrete Session Track from the ASCE/SEI Committee on Concrete & Masonry Structures (CCMS).