عنوان مقاله:

SEISMIC DESIGN OF BEAM-COLUMN JOINTS IN RC MOMENT RESISTING FRAMES

محل انتشار:

پنجمین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1386)

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خلاصه مقاله:

The behavior of the reinforced concrete moment resisting frame structures in resent earthquakes all over he world has highlighted the consequences of poor performance of beam-column joints. Large amount of research carried out to understand the complex mechanisms and safe behavior of beam-column joints has gone into code recommendations. This paper presents critical review of recommendations of wellestablished codes regarding design and detailing aspects of beam-column joints. The codes of practice considered are ACI 318M-02, NZS 3101 and Eurocode 8 of EN 1998-1: 2003. All three codes aim to satisfy the bond and shear requirements within the joint. It is observed that ACI 318M-02 requires smaller column depth as compared to the other two codes based on the anchorage conditions. NZS 3101 and EN 1998-1: 2003 consider the shear stress level to obtain the required stirrup reinforcement whereas ACI 318M-02 provides stirrup reinforcement to obtain the axial load capacity of column by confinement. Significant factors influencing the design of beam-column joints are identified and the effect of their variations on design parameters is compared. The variation in the requirements of the shear reinforcement is substantial among the three codes.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: