

## Effect of Stirrup Corrosion on Concrete Confinement Strength

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**Abstract :** This study investigated how the concrete confinement strength and axial load carrying capacity of reinforced concrete columns are affected by corrosion damage to the stirrups. A total of small-scale 12 test specimens were cast for evaluating the effect of stirrup corrosion on confinement strength of concrete. The results of this study show that the stirrup corrosion alone dramatically decreases the axial load carrying capacity of corroded reinforced concrete columns. Recommendations were presented for improved inspection practices which will allow estimating concrete confinement strength of corrosion-damaged reinforced concrete bridge columns.

**Keywords :** bridge, column, concrete, corrosion, inspection, stirrup reinforcement

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