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Comparative Study Of Bonded & Unbonded Post-Tensioning For Long Span Beam In Building

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Abstract- During the past century, the use of prestressing has increased tremendously. most important techniques of prestressing is post-tensioning. In post tensioning two different method bonded and unbonded technic. Due to those technic used in tendons/strands, thus overcome the more flexible and fast construction compare to RCC. Bonded and unbonded system in stress, strength, deflection , bending moment and load balancing condition with solve by theoretical and software. System present in graphical and designing data. Both methods applying and solve base on case-study. Also find steel quantity span upto 10-40 meter use for both system, steel tendons in post-tensioning applications, is described. At results of bonded and unbonded system which is best for minimum losses and construction suitability on given by study data.

Keywords-Adapt-pt, Bonded rectangular beam, Unbonded rectangular beam, Post-tensioning system, tensile stresses,

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