

THE EFFECT OF FLANGE THICKNESS ON THE BEHAVIOUR OF DIFFERENT TYPES OF FLANGED SHEAR WALL

VAISHALI BHARTI & SALEEM AKHTAR

Civil Department, UIT RGPV Bhopal, Madhya Pradesh, India

ABSTRACT

The main objective of this research work was to study and analyze the nonlinear behavior of different types of reinforced concrete flanged shear wall with different flange thickness using finite element method. The total volume of each model (I, U type) was similar, such that when thickness decreases in model, the length of wing increases. The nonlinear behavior of the different reinforced flanged shear walls is tested by nonlinear finite element program ANSYS. An attempt is made to evaluate the Stress distribution and displacement of flanged shear wall. Numerical results show that shear walls with thick flanges behave more efficient than walls with thin flanges.

KEYWORDS: Flanged Shear Wall, Finite Element Analysis, Nonlinear, Lateral Load