

Finite beams on an elastic foundation

Ghazi Saleh Hasanain

Civil Engineering

July 1976

Abstract

Differential equations for the solution of finite beams on elastic foundations are simplified and summarized. The modulus of foundation are developed and evaluated. Application of the equations and the beam functions in theoretical analysis is illustrated. A comparison for combined footing design is presented of a beam with a linear stress distribution of the subgrade, and a beam on a Winkler type elastic foundation. The combined footing was treated for symmetrical and unsymmetrical cases. Tables, graphs and conclusions of the results are presented.