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Comparative Study of Analysis, Design and Total Cost Differences between Monolithic Structure and Conventional Structure

Aamir Hui¹ and Dr. Vinubhai R. Patel²

Post Graduate, Structural Engineering Student, Department of Applied Mechanics & Structural Engineering¹
Assistant Professor, Department of Applied Mechanics & Structural Engineering²
Faculty of Technology & Engineering, The Maharaja Sayajirao University of Baroda, India
huiaamir96@gmail.com¹ and vrpatel-appmech@msubaroda.ac.in²

Abstract: The primary objective of this research is to investigate the behavior of conventional buildings featuring non-structural walls as AAC blocks and all the remaining things same, with monolithic structure buildings constructed using tunnel formwork. To compare the design steel and total cost between these two types of structures subjected to seismic loads, as defined by the IS codes. To achieve this, a comprehensive seismic analysis was conducted using the Linear Dynamic Response Spectrum Method in ETABS 2020 software.

Keywords: Monolithic structure, seismic performance, Mivan structure, Tunnel formwork, Special Moment Resisting Frames (SMRF).

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