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Analysis of Connections for Precast Sections of Cut and Cover Tunnel Sections by Using Finite Element Method for Regular Traffic and Metro

Kartik S. Mude[1], Dr. Ankush Mankar[2], Prof. Girish Sawai[3], Prof. Harshawardhan Rangari[4]
PG Student/Research Scholar, Department of Civil Engineering[1]
Principal[2]
HOD, Department of Civil Engineering[3]
Assistant Professor, Department of Civil Engineering[4]
VM Institute of Engineering & Technology, Nagpur, Maharashtra, India

Abstract: *Understanding of the precast cut and cover tunnels and different types of connection are to be used and suitable option to be evaluated for the purpose of design after analysing. Structural analysis is a process to analyse a structural system in order to predict the responses of the real structure under the action of expected loading and external environment during the service life of the structure. The present work reflects on the analysis and design of cut and cover tunnel (Precast Panel's) which are the main source of transportation to human life where there is no connectivity which helps to travel from place to place. The modelling and analysis of precast panel's for cut and cover tunnel construction is carried out by using the software Staad-pro software. Different design loads are taken into consideration mainly for metro and regular traffic loading are considered. The design loads are considered as per IRC 6. Cut and cover panels is designed by using Staad-pro and results are compared manually.*

Keywords: Pre-cast panels, cut and cover tunnels, cushion loading, earth pressure, structural design, theoretical calculation, staad pro etc.

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