

عنوان مقاله:

Numerical Investigation of Dynamic Response of Reinforced Soil Retaining Walls

محل انتشار:

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خلاصه مقاله:

Reinforced soil retaining walls have recently become widespread due to their advantages over conventional retaining walls. In this paper, numerical analyses, using FLAC software, have been employed to investigate the influence of mechanical and geometrical properties of the wall and amplitude and frequency of the source vibration on the dynamic behavior of a geosynthetic-reinforced soil retaining wall. The results show that the type of facing affects the general form of deformation. Also the wall displacement decrease with increase in reinforcement stiffness and length. Any increase in the acceleration amplitude increase the wall displacement and reinforcement loads. The difference between the frequency of the base excitation and the natural frequency of the model is the most important factor determining the wall dynamic response.

کلمات کلیدی:

Reinforced Soil Retaining wall, Geosynthetic reinforcements, Dynamic analysis, Numerical modeling, Finite difference

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