

عنوان مقاله:

Comparison of HS and MC Constitutive Models in Sheet Piling Excavation Method in Dry Soil Layered Models
(Dynamic Analysis)

محل انتشار:

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خلاصه مقاله:

In plastic models like Mohr-Coulomb (perfect plastic) yield surface is constant in stresses space. In contrast to these models, in hardening models, yield surface expands due to plastic straining. Hardening Soil model (HS) shows realistic and exactly assessment of soil actual behavior, so it should be considered in projects. In this paper sheet pile excavation is defined and Mohr-Coulomb and Hardening Soil models using finite element method are considered, separately. Acceleration spectrum of Manjil earthquake is used for dynamic analysis. The located soil in back of the wall is modeled in different layered models. Obtained results show increase 27.4, 72.2, 34.9 and 160.1 percent in the axial force, shear force, bending moment and horizontal displacement of sheet piles on the completion phase of excavation in Hardening Soil model, respectively. Also axial force of struts are increased. Results show that layering of soil in back of excavation support system has no effect on obtained results

کلمات کلیدی:

Constitutive Model, Mohr-Coulomb model, Hardening Soil, Sheet piles supporting system

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