

عنوان مقاله:

Numerical investigation of the stability of entrance portal at time of TBM arrival into station by FLAC3D

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خلاصه مقاله:

In boring of railway tunnels in urban areas with TBM, when boring machine enters the station, special piles (plastic piles) are built at entry of tunnel to the station. These piles don't have any reinforcing bar and their cement content is 175 kg/m³. In its mixing plan, bentonite (bentonite content=30 kg/m³) is used to more waterproofing in stations which are under the underground water level. Because TBM cannot bore high strength steel and concrete, this kind of concrete is used in piles (plastic piles). Set of the entrance plastic piles which are built in few rows with suitable overlap (20 cm), are named as entrance tampon. These piles will provide stability and small deformation for the soil which is at backside of the tampon and also it will provide stability of entrance tampon when a pressure is applied to the work front by boring machine. In this paper, suitable thickness was obtained for stability of entrance tampon when TBM enters the station by using of numerical analysis. FLAC3D V5.00 is the software that was used for modeling

کلمات کلیدی:

stability, Tabriz urban railway line2, Entrance tampon, Plastic pile

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