A Method for Proposing Countermeasures against Ground Vibrations along Railway Lines based on Numerical Simulation

Masanori NOYORI Hidefumi YOKOYAMA

There have been many studies on countermeasures against train-induced ground vibration. However, in many of the countermeasures, the mechanisms and reduction values have not been clarified. Therefore, countermeasures are generally selected on the basis of previous cases or empirical judgments. Using a numerical simulation consisting of a running train, tracks, supporting structures and the ground, we investigated a method for extracting primary factors of the vibration. Then, a method for proposing countermeasures considering the primary factors was investigated. In addition, this report presents a flow chart which shows the relationship between the primary factors and the proposed countermeasures.