

**Method for Determining the Degree of Impact on the Track  
due to the Damage of a Submerged Pipe in a Railway Embankment**

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When small-diameter pipes buried in railway embankments are damaged, there is concern that the surrounding ground may loosen, leading to a decrease in ground reaction forces and track settlement. In this study, we calculated the distribution of subgrade reaction coefficients on the roadbed surface when a pipe is damaged, and created an impact assessment chart that can easily determine the impact on the track based on the depth and diameter of the damaged pipe. The validity of the calculation method for the distribution of subgrade reaction coefficients has been verified by means of model tests and field tests.